CHEMICAL MARKETS

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Chemistry's Stake in Agriculture

THE Farm Board has retreated from the Chicago wheat pit westward to the prairies. In the place of price pegging it is offering the gratuitous advice to curtail acreage. All of which should convince the dubious and hopeful alike of the futility of any political solution, however generously subsidized, of our farm problems.

THE farm problem, however, is too serious a one and too widely affects our people for us tamely to lie down and accept the inevitable. While it is highly dangerous to tamper with prices of basic commodities, nevertheless, a definite, well thought-out thorough going business solution might be worked by a half dozen great American industries—fertilizers, insecticides, feedstuffs, farm implements, transportation and banking—all of them vitally concerned with a profitable agriculture. Accumulated in these industries is a vast storehouse of practical experience on the business aspects of farming, backed up with a broad economic vision, a capital first-hand knowledge of conditions, and rare executive ability.

THIS farm problem is one of considerable and always increasing concern to the chemical industry. Our fertilizers and insecticides are one of the most immediate factors in cost per unit of our agricultural produce and they are continually growing larger in the balance of our chemical output. The fertilizer industry which has historically been a mixer of natural plant food material is becoming more and more chemicalized each season, and the handwriting on the wall is plain, that shortly the manufacture of fertilizers, having become a chemical process, will fall even more directly than in the past into the hands of our chemical industrialists. The marked increase in the use of insecticides is supplemented by the use of weed killers, seed disinfectants, fly sprays, and special soil treatments. There are many farm economists who see the farming future in machinery and chemicals which will not reduce acreage, but which will so increase production per acre at reduced cost per unit that the American farmer may regain his place as maker of the world's price on foods.

IS IT not time to forsake a demagogic solution and find an economic one? Where could wiser or more friendly counsel for distressed agriculture be found than among the business leaders of those industries whose very life is so intimately bound up with the fortunes of the farmer? This suggestion will be extremely unpopular in Washington and will raise a howl of mock concern over the dangers of turning farming over into the hands of big business for selfish exploitation.

N.A.S.

North Atlantic States

From the Delaware Capes to thunderous Niagara Falls, these states are beehives of industry. The whole territory is a network of manufacturing plants producing products of wide diversity. In many of them, Alcohol is a basic ingredient. An "American" Alcohol plant is located in Philadelphia.

"SEE AMERICAN FIRST"

The scope of "American" service fits in with today's needs of manufacturers requiring Alcohol. . . . . Quality is the prime requisite of a satisfactory Alcohol. "American" gives quality . . . to the point that it is always a dependable factor in your dealings with us. . . . . The excellence of "American" Alcohol is a technical achievement . . . made possible by the skill and knowledge of a well trained organization. Service matches the efficiency of the product. . . . . Add to profits and satisfaction . . . "See American First" for Alcohol.

Sales Offices and Warehouses

Baltimore, Md	Grand Rapids, Mich.	Pekin, Ill.
Birmingham, Ala.	Gretna, La.	Philadelphia, Pa.
Boston, Mass.	Indianapolis, Ind	Pittsburgh, Pa.
Buffalo, N. Y	Kansas City, Mo	St. Louis, Mo.
Chicago, Ill.	Memphis, Tenn.	St. Paul, Minn.
Cincinnati, Ohio	Minneapolis, Minn.	San Francisco, Cal
Cleveland, Ohio	Nashville, Tenn.	Toledo, Ohio
Detroit, Mich	New York, N. Y	Wichita, Kans.
	Omaha, Nebr.	

Warehouse stocks carried at all principal consuming points

Plants:
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AMERICAN
COMMERCIAL ALCOHOL CORPORATION
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Plants:
Philadelphia, Pa.
Sausalito, Cal.

AMERICAN BRAND DENATURED ALCOHOL

The Newest Competition

From the distressed textile industry has come a true message that chemical executives would do well to bear constantly in mind. Mr. Henry P. Kendall, executive head of mills in both the North and South, said at the annual meeting of the cotton manufacturers: "Thou shalt compete in creativeness, rather than in price alone, for research is to-day the gateway to survival and leadership."

Tariff Commission's Job

Undisputed is the fact that widespread dissatisfaction with the tariff bill, now law, existed, even in the minds of many who are considered staunch believers of the basic soundness of protection.

That its final adoption was hastened by the inclusion of broadened presidential power, acting through the medium of the United States Tariff Commission, likewise is undisputed.

Within the short space of time, since the President signed the bill, investigations on fifty articles have been ordered, with a view to possible readjustment of rates.

Business will be more readily placed on an even keel if the organization of the Commission is announced as quickly as it is possible to find the right men for the important job ahead, and the Commission clears the private offices of goodwill bouquets and gets down to a production basis.

Chemical Balances

New chemicals come into use and new manufacturing processes replace old, established technique, creating new markets, and establishing a new balance of supply and demand that requires collaboration between chemical and economic thought.

Synthetic indigo is a famous case in point, as it displaced a natural product and required not only new materials but also old ones in unprecedentedly large quantities. At least one of the earlier processes, chemically feasible, had to be discarded because of raw material insufficiency.

Thus, o-nitro benzaldehyde was the starting point of a good synthesis leading to the desired dyestuff, but an economic survey showed the impracticability at that time of a process depending upon toluene. On a basis of 5,000 tons of indigo annually (then coming wholly from natural sources) 20,000 tons of toluene would have been required. At that time only about 5,000 tons came from coal tar distillation. Moreover, benzene and toluene were produced in the ratio of 4 to 1, and a market for an additional 60,000 tons of benzene, or 80,000 in all, would have to be found. Such additional quantities could easily be absorbed now, but not in those days. Finally, coal tar retort capacity, at least in Germany, was then quite unable to provide for a quadruple output of light fractions.

In 1890, K. Heumann devised an indigo process which was forerunner of the successful one later used. His method made phenylglycine from aniline and monochloracetic acid, and fused the product with alkalies to give indigo. Only small yields were obtained, however, and in 1893 anthranilic acid replaced aniline. By 1900, the Badische Company produced indigo successfully on a commercial scale.

Anthranilic acid could be made from o-nitro toluene, with the important economic disadvantages previously mentioned, or from naphthalene through phthalic anhydride, phthalimide, and by the Hofmann rearrangements to anthranilic acid. Naphthalene was then practically a waste product of coal tar distillation. True, about 15,000 tons annually were used to make lamp black and to enrich gas, but the profit was small, while the potential production capacity of the industry was about three times that amount, ample for the world's indigo supply. The oxidation of naphthalene to the anhydride by the use of chromic acid, the customary laboratory oxidizing agent, was unpractical because of cost, so that sulfuric acid became the agent, and luckily mercury salts as catalysts for the reaction were discovered. But another question of cost arose. Oleum was the reagent, and the reaction gave rise to huge quantities of sulfur dioxide which had to be reconverted to the trioxide. The contact sulfuric acid process, then new, made a complete cycle, requiring only little additional sulfur for replacement of acid lost in the operation.

Simultaneously, the company had to provide for the production of chloracetic acid from 2,000 tons of acetic acid coming from 100,000 cubic meters of wood. A large supply of pure chlorine was necessary. Weldon's process was too expensive. The Deacon process gave chlorine too dilute for the purpose. Finally, an electrolytic method, with purification of the chlorine by liquefaction, was developed.

As in many instances, the industry which gives the first impetus to a new process is in time outdistanced by its protégé. Our domestic production of indigo amounts to roughly 15,000 tons, valued at $3,500,000 while the total production of sulfuric acid was 37,500 tons valued at $4,000,000, and of caustic soda 560,000 tons valued at $29,000,000.

Indigo is a classic example. To-day a score of synthetic products are creating even vastly greater new markets for chemicals. Never was the chemical future so rich in opportunity for the chemical maker.

Quotation Marks

Further evidence that sound advertising is both an antidote to business depression and a stimulant to business activity may be found in a report by President George W. Hill to the stockholders of the American Tobacco Company. In referring to an increase of 100 per cent in business for the recent year over the preceding twelvemonth, Mr. Hill said:

"We attribute in no small measure the prosperity of the company in recent years to the proper use of newspaper publicity."

The most remarkable feature about advertising probably is the fact that it is most remunerative in periods of depression, as Mr. Hill's report indicates. Beyond this, advertising in "hard times" exercises a psychological influence which goes far toward relieving any general feeling of gloom. The wise man advertises in dull times, as well as in periods of prosperity.—*Manufacturers Record.*

Too many business people are likely to study events only as they are reflected through the local daily press; and, in so doing, miss whole chapters of progress and change, or end with poorly-balanced conceptions. This is particularly true in regard to the average Canadian opinion about business and manufacturing in the Soviet Union.

Admitting that the system of government is different, and, from our point of view, undesirable at the present time, in so much as it reduces individual ownership to an extreme minimum, and replaces such standards as individual wealth by position and power over one's fellows in a more direct way, the fact remains that the Soviet government very rapidly is organizing the resources and productive power of the former Russian territories into a machine that is certain to become a world-wide influence in trade.

Enormous sums are being paid American, British and European engineers and firms for their brainpower, accumulated experience, and ability to build and organize plants of every kind and description. The Soviet is about the only country in the world where agriculture in general is being placed on a basis where it can co-ordinate with other activities in a modern way. Large-scale farms are economic, however ruthless on the present owners.—*Canadian Chemistry and Metallurgy.*

The fertilizer industry should be a very prosperous industry but it isn't. Once it was, and many of the fertilizer stocks were ranked with the best. It is one industry that has made no comeback since the war. The leading companies can report very strong balance sheets, but strong balance sheets do not mean much without earning power. Some day the fertilizer companies will come back, but not until there is a semblance of stabilization, something that is now lacking.—*Wall Street Journal.*

A recent article in the Chicago Tribune, commenting on artificial efforts to sustain declining industries, quite clearly shows that whereas labor has frequently blamed installation of machinery for labor displacement, in reality, many times labor is directly responsible by its demands, for the condition of the industry. They cite quite clearly—that the high wage scale necessitating high prices for coal, encourages the installation of oil burners and the installation of machinery to give more complete combustion. Result: not so much coal is wasted, less coal demanded, and labor thereby effected adversely.—*The Test Tube.*

The American people as a whole, with all their investors, property owners and private businesses, are confronted with the threat of the complete elimination of the Supreme Court. And without the Supreme Court our Government will disintegrate into a Dictatorship, either that of a single man or that of the Senate. The American people face the peril of socialization and the fatal weakening of constitutional private rights. And this peril will probably crystalize within the coming six or eight years.—*The Paper Industry.*

Fifteen Years Ago

(From our issue of August 1915)

Carnegie Steel Co. began the manufacture of toluol.

E. K. Speiden became assistant treasurer of Innis, Speiden & Co.

L. B. Fortner Co., dyestuffs, was incorporated in Philadelphia.

Consolidated Color & Chemical Co., Newark, planned the erection of a $15,000 plant addition.

Warner-Klipstein Chemical Co., New York, planned the erection of a $200,000 plant at Charleston, W. Va.

What Do the New Class Rates Mean to Chemical Freights?

Choctaw and Hindustani are ABC to most chemical executives in comparison with the official classification of freight rates, which have just been drastically revised by the I. C. C. What this revision means is set forth here in the language of the industry by a man who has "lived" chemical freight rates throughout the past fifteen years.

By Harry M. Mabey

General Traffic Manager, Mathieson Alkali Works

THE Interstate Commerce Commission, in prescribing the basis for a complete revision of the class freight rates to, from, and between all points in Official Classification territory, has handed down what is, unquestionably, to the chemical industries, the most important rate decision ever made by that body. The decision applies interstate, not intrastate, and names maximum rates. While no specific order is made, the Commission expects that these new rates will be in effect by November 1st, 1930.

This is the outcome of a proceeding instituted early in 1924, involving all *interstate* class rates in Official Classification territory, applicable over all-rail or rail-water routes. That a revision was inevitable has been recognized for many years and many attempts were made by the carriers and shippers to arrive at an agreed basis, without success. Compelled, primarily, by existing violations of the long-and-short haul clause of the Interstate Commerce Act, the Interstate Commerce Commission finally entered into this proceeding of its own motion. Both carriers and shippers participated actively, but the resulting structure seems to be wholly of Commission design.

In general, the new rates are somewhat lower than those proposed by the railroads, and many modifications of importance industrially have been adopted by the Commission. The efforts of individuals in the chemical industry are, in a large measure, responsible for these favorable results, because of their energetic support of the Associated Industries of New York, which body took the lead in protecting the shippers' interests.

In its scope, this proceeding covers the entire Official Classification territory, which embraces all the States east of the Mississippi River (excepting the northern peninsula of Michigan, also Wisconsin, other than certain places on the West-bank of Lake Michigan), and north of the Ohio and Potomac Rivers. It also includes all of Virginia, excepting a comparatively small section in the southern part.

Revision Important

The Commission notes that this territory is the most thickly populated and highly industrialized section of the United States. It has 51 per cent of the population in but 12.4 per cent of the nation's area. The combined wealth in 1922 was 52.7 per cent of the total, and in 1927 it produced 70 per cent in value of our manufactured goods. That the chemical industry is centered in this area is well-known, therefore the importance of this rate revision to us is apparent.

This revision covers only class rates as distinguished from commodity rates; the latter were not involved in this proceeding, nor is there now any direct connection between the two, although hereafter the principles of the present class rate decision will doubtless be made the underlying basis for any

attempts at the revision of existing commodity rates, and surely for any such new rates.

The distinction between class and commodity rates may be simply explained. The Official Classification lists all articles of commerce, according to their varied packaging, and assigns to each a "class" rating so that, in connection with a table of rates, a freight rate may be found upon any article between any two points in the territory by using the governing classification; in this case the "Official" Classification. Almost without exception this classification rating governs the freight charge on any less than carload shipment, and, as to carload shipments, it is of great importance because there are comparatively few commodity rates in Official Classification territory. In other territories—the South and the West—the bulk of the carload movement is upon commodity rates, accordingly, there, the class rates are not so important.

Specific Commodities Excepted

In the treatment of specific commodities, when shipped in carload quantities, the Classification may be found too rigid adequately to control, or possibly circumstances may warrant special treatment in a part of the territory covered by that classification, or upon the line of but one or more of the member railroads. This is accomplished by publishing an "Exception" to the classification, which usually places the treated article in a different class or makes the rates thereon with some percentage relationship to the class indicated by the classification itself. Necessarily, therefore, any change in the class rates directly affects all the rates which are made on any percentage relationship to a classification rating. Such "Exceptions" are commonly used in making rates on many of the important chemicals, for example—the industrial alkalies, etc. This decision, therefore, directly changes the actual rates upon all articles governed by the classification itself, or by exceptions thereto.

Important Chemical "Commodities"

Beyond this, many important chemicals are covered by "commodity" rates, which are in no way directly affected by this decision. A commodity rate is ordinarily established to care for a particular movement of a specific article or commodity, under conditions which do not warrant a general territorial exception to the classification. Perhaps competition between points of production or competition between railroads are the usual influencing factors, with volume of movement or heavy car loading an important consideration. Ordinarily such rates are limited both as to origin and delivery points. The chemical industry depends upon many such rates, and the ultimate effect thereon of this decision will require careful consideration, in the near future.

With this general understanding of its scope, the decision itself and its effects are, broadly speaking, as follows:

It establishes a uniform class rate structure east of the Buffalo-Pittsburgh line, based, for the first time, principally upon mileage; supplanting the unrelated old-time rates made upon varying levels—the result of carrier, port or water competition. On the most important industrial hauls the new scale makes, generally, higher rates than those now in effect. Existing freight-rate relationships between nearly all the largest centers are materially changed, the new rates reflecting their geographical location as determined by railroad mileages.

Increases Rate Levels

This same scale supplants that existing in Central Freight Association territory (i. e., west of the Buffalo-Pittsburgh line) and generally increases the existing rate levels now prevalent there, particularly upon the longer hauls. In this territory the increase is more general than in the east.

In New England, likewise, a new scale is established upon a level 5 per cent higher than the basic scale that is to apply in the balance of Official Classification territory.

An entirely new rate structure is set up between Central Freight Association territory on the one hand, and Trunk Line (i. e., east of the Buffalo-Pittsburgh line) and New England territories, on the other hand. Heretofore these interterritorial rates have been but little influenced by mileage, but rather by fixed relationships between the ports of New York, Philadelphia, Baltimore, Boston, and Newport News-Norfolk. These port rates have applied to large interior groups. The new rates reflect mileage relationships throughout—comparatively small groupings being provided both in the Central territory and in the East. From Chicago, for example, the new first class rate to Philadelphia will be 7c lower than to New York, instead of 2c: to Baltimore, 12c lower instead of 3c; to Boston, 2c higher instead of 7c; to Newport News-Norfolk, 11c higher than Baltimore. These differences diminish on the lower classes according to their percentage relationship with first class.

Differences Not Uniform

These differences, however, are no longer uniform from all points in Central territory; each origin has its own basis, for example, the rates from Detroit to New York and to Philadelphia will be the same, and Baltimore (first class) but 3c below New York. Changes, reflecting mileage, also result, in varying amounts, at interior eastern points. Rail-and-lake lines are authorized to make rates between the east and ports on Lake Michigan at 90 per cent of the all-rail rates. Neither export nor import rates are involved in this decision. The changes are too wide-

spread to treat in detail, but every shipper will be affected and a detailed analysis of the particular rates in which he is interested will show important changes.

Any study of this finding makes it apparent that the Commission has been influenced by the principle that the articles taking the higher class in the classification should bear a greater share than heretofore of the transportation burden. These higher classed articles come within the general description of merchandise and manufactured goods, are of comparatively high value, and move mostly in less than carloads. It is apparent that the terminal expense of the railroads is at its greatest on this traffic, because they have to warehouse and handle less than carload shipments, which is not true of carloads. There are some few carload ratings in the first three classes, but as a rule, such higher rates are caused by unusual value, or the bulky nature of the article.

Increase on Four Classes

As a general thing, the Commission have, by this decision increased materially all the rates on these higher classes, i. e., classes One, Two, Three and Four. Fourth class is on the border line between the normally less than carload and carload classes, that is, there are about an equal number of less than carload and carload ratings in fourth class. A marked increase is made in the fourth class rating, and, in disposing of important protests from shippers against an advance in the fourth class rating, the Commission found that fourth class was essentially a less than carload rating and that if any carload traffic, so rated, was improperly affected by the changes that the cure must be found in a revision of the rating on the particular article. Important chemical products are in this difficulty.

Chemicals at Lower Rates

The lower ratings, fifth and sixth class, cover either the very lowest grade of manufactured articles, or heavy loading bulk raw materials. A great many of the products of the chemical industry are covered either by the fifth or sixth class rating. Many chemicals move upon commodity rates lower than the fifth or sixth class rates, but these ratings and their rates have an important relation to the actual commodity rates, because the latter are inevitably compared therewith. As a general thing it may be said that the decision very nearly maintains the present level of fifth and sixth class rates and that where a slight increase occurs in the rates on these classes, it is less, proportionately, than under classes One, Two, Three, and Four.

The whole new structure bears much resemblance to the scale of rates which has been in effect for many years in the Central Freight Association territory (i. e., west of the Buffalo-Pittsburgh line), the important feature of difference being that the progression of this new scale is greater than heretofore, in other words, that as the distances grow greater, the increases over existing rates are greater.

The prevailing rates for the shorter distances, say up to approximately 150 miles, are maintained very nearly unchanged. From there up to 300 miles, the increase is moderate, but beyond 300 miles, the new scale is materially higher than the present one. This may indicate an effort to protect the railroads against motor truck competition on the shorter hauls, with a feeling that the longer haul tonnage must move by rail anyhow. Such a principle, apparently, increases the difficulty of trying to compete, in distant markets, with producers located nearer those consuming points.

Relationship of Classes

Under the Official Classification, dating back to 1887, six numbered classes exist. In this, heretofore, there has been no change, excepting by the addition of two special classes. Under the new decision, the Commission provides for seven classes, which will automatically replace the eight now in use, and sixteen new classes. This does not mean that the existing classification will be now changed, but provides sixteen additional classes which may be used in the future. The Commission now provides by percentage relationship to, and lower than, first class, twenty-two additional classes, five of which are within the less than carload ratings range and are higher than fourth class; three of them are lower than fourth class and higher than fifth class; two of them are lower than fifth class and higher than sixth class; seven are lower than sixth class. The underlying theory is sound; it is evident that six to eight classes are no longer sufficient to classify the thousands of articles being transported to-day. It is to be assumed that in the future many of these new and lower classes will supplant existing commodity rates.

Changes by Classes

It is therefore apparent, that, in addition to any changes in the rates themselves by the establishment of the new scale, a further change would be caused by any change in the percentage which the class bears to first class; first class invariably considered as 100 per cent. Such changes do result from this decision; —second class is to be 85 per cent of first class, which brings about a slight reduction, the existing basis being as high as 87½ per cent; third class becomes 70 per cent and brings about an increase, being at present as low as 66 per cent; fourth class becomes 50 per cent, and brings about a sharp increase, at present being as low as 46⅔ per cent; the fifth class is fixed at 35 per cent, resulting in a reduction (although the railroads asked that it be made 40 per cent of first class), existing rates were as high as 43 per cent. Sixth class is fixed at 27½ per cent (although the carriers asked that it be made 30 per cent); this brings about a material reduction, existing rates

being as high as 38 per cent and no lower than 28 per cent. This shows, therefore, that on most articles rated fourth or higher a double increase will result from the application of these percentages to the new scale. On the contrary, it will be seen that, as to the fifth and sixth class ratings, which cover carload lots of comparatively low grade articles and raw materials, that any increases in the scale are more or less neutralized by a reduction in the ratio of both fifth and sixth class to first class. The principle governing has been outlined above; being the thought that manufactured articles of comparatively high grade can and should bear their full share of the transportation burden, and that the economic and more favorable transportation characteristics of the lower grade articles and materials should be reflected in the rates and ratings applicable thereto.

May Increase Revenues

The decision reflects, in all major points, a painstaking effort by the Commission to adjust this complicated situation upon sound principles in accordance with existing law. The report shows the care with which the Commission has considered every controversial point developed in evidence on this voluminous record. What this adjustment will mean in revenue to the carriers cannot be accurately predicted. It is evident that their recent unfavorable earnings have been considered. In some quarters it is believed that the new rates will give the eastern carriers around $25,000,000 more per year; much study and analysis must precede any well-founded opinion on this phase of the question.

While this decision directly operates to revise, and, in the majority of cases, in the rate-making territories governed by the Official Classification, to increase the freight rates upon articles moving upon class ratings or exceptions thereto, there is an outstanding and important exception: the existing rates upon fresh domestic fruits and vegetables, and hay, are ordered maintained at their present levels, unless the revised basis is lower, when these rates are to be correspondingly reduced.

In most of the Official Classification territory these products move on class rates. Their tonnage is an important one—certainly over two million tons per year. Here the Commission are in the anomalous position of, in effect, making a specific classification finding on this single group of class-rated products and refusing to do so in other instances. They say that this finding is warranted, regardless of the Hoch-Smith resolution. In a decision which subjects everyone else, promiscuously, to many increases and few reductions, this sweeping exception makes nothing but reductions on all fruits and vegetables throughout the entire territory. It is clear that the products of industry are compelled in the measure of their freight rates to offset the reduction in revenue on this large tonnage of fruits and vegetables. This phase of the decision seems inconsistent; whether it prove practicable of application would seem open to question.

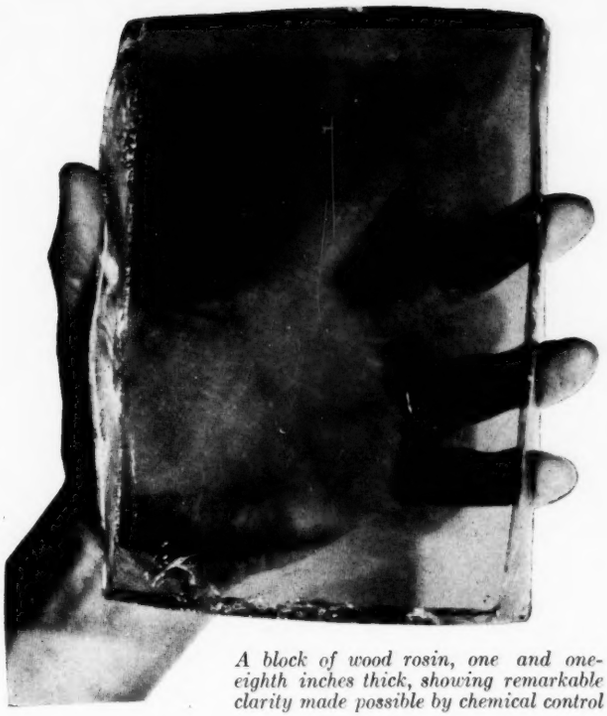
Concurrently, the Commission have laid down, by a separate decision, an entirely new basis of class rates for the Western Trunk Lines; in this case, directly designed to give carriers in that territory more revenue, i. e., roughly, the northern half of the area between the Great Lakes and the Mississippi River, on the east, and the Rocky Mountains, on the west. The Commission estimates that these new class rates, also expected to go into effect November 1, 1930, will increase these western roads' earnings by $10,000,000 to $12,000,000 per year, and this increase is held to be justified. The new basis is modeled somewhat along the lines of the above-described Eastern Class Rate scale, and, together with the Southern and the Southwestern Class rate adjustments (both made by the Commission in recent years), it means that a class rate structure will prevail throughout the entire United States, east of the Rocky Mountains, that has been designed by the Commission itself, with the four territorial and interterritorial adjustments dovetailing into a harmonious whole. The relationship of these territories as to their general class-rate levels, one with the other, is about as follows: the new Official Classification territory scale is about 80 per cent of the new Western Trunk Line scale, about 72 per cent of the already established Southern scale, and about 66 per cent of the prevailing Southwestern scale. These differences in level reflect, primarily, variations in the earning power and operating costs of the carriers in these respective territories.

Under the operation of these rate adjustments, the outstanding result is that freight rates are so made as to give to all the benefit of their geographical location, as reflected by the shortest available railroad mileage, subject to the effect of the variations in level prevalent in the different territories or parts thereof. Through single-factor class-rates are now available, not only within the territories themselves, but interterritorially, everywhere in the United States.

Gypsum, Lime & Alabastine, Canada, Ltd., acquires Crystaline Stone Products, Ltd., and will operate it as separate division under name of Crystalite Products, Ltd. Newly acquired company produces exterior and interior stuccoes. Arrangements have been made for manufacture and distribution in Toronto and Winnipeg and similar organization is planned for Montreal.

R. E. Haire, president of the gypsum company, is now in England studying possibilities of adding a plant in that country.

Twenty Rumanian oil companies, representing 95 per cent. of crude oil production in country, vote to accept offer made by Standard Oil Company of N. J. and Shell interests to purchase all export excess supplies of crude oil and refinery products of the Rumanian producers as of July 1.



A block of wood rosin, one and one-eighth inches thick, showing remarkable clarity made possible by chemical control

Naval Stores

Become Chemical Products

By Arthur Langmeier

Assistant Director of Sales, Naval Stores Department, Hercules Powder Co.

TURPENTINE and rosin have held a place of importance in the arts and industry for many years, naval stores representing our country's oldest industry. The demand arising from the increase in the per capita consumption of products made from turpentine and rosin, and the existence of raw material in the form of fallen wood and stumps from the Southern pine states made practicable and possible the steam and solvent process employed by our company for the extraction of turpentine, pine oil, and rosin.

Since the early developments in the first few years of the present century, the contributions of many experimenters and research workers have added to the ideas of the inventor. This has produced an industry closely controlled in its many manufacturing steps and a number of uniform high-grade products, which, in their respective fields, have gained the confidence of the consuming public.

Steam and Solvent Process

The steam and solvent process in its generic aspect is relatively simple, but, from the gathering of wood to the recovery of high quality chemicals lay many opportunities for the research of the chemist and the ingenuity of the engineer.

The wood is taken from the ground and broken into pieces of convenient size by a combination of pulling and blasting with dynamite and is then transported by railroad to the extraction plant. The wood is carried by conveyor to a combination of milling devices where it is shredded to chips approximately match size.

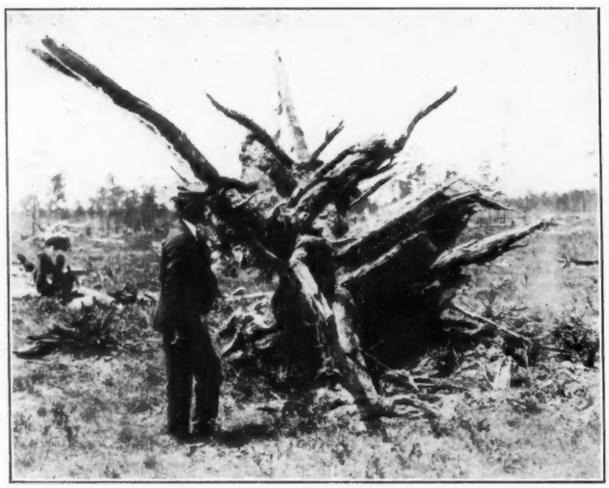
The chips are introduced by suitable conveyors to stationary extractors of the vertical tank type. Here they are treated with live steam which causes the turpentine and some of the pine oil to distill. This distillate is condensed and separated into a mixture of turpentine and pine oil, called crude turpentine, and the water resulting from the steam distillation. The crude turpentine is rectified in modern fractional distillation equipment into turpentine and pine oil.

The chips free from crude turpentine are covered with a very close-cut petroleum naphtha and by a series of washes the rosin and pine oil remaining in them is extracted. The naphtha is removed by steam distillation and the chips are used for fuel for the process. The extract is conducted through a series

of tanks and filters to remove suspended small wood particles and then through a series of film-type vacuum evaporators where process naphtha is removed for re-use in the extraction process.

Pine Oil and Turpentine Uses

The pine oil is recovered from the extract as a crude distillate in this evaporating operation and subsequently refined by rectification. It is then blended



Southern pine stump, showing amount of resinous wood buried beneath a fair sized stump. These are blasted, chopped and shipped to the plants from wood camps in Georgia and Mississippi

in proper proportion with the previously rectified pine oil from crude turpentine to form the pine oil of commerce. The rosin constitutes the non-volatile residue from the evaporators.

Steam-distilled wood turpentine and steam-distilled pine oil, as the liquid products of our process are known, have found a place in many industries throughout the world. These products contain a number of terpene hydro-carbons and terpene alcohols of interest and represent raw materials for many industrial chemical uses. These liquids are, however, mixtures of terpenes, and the development of chemical processes employing relatively pure terpenes has brought about the separation of steam-distilled turpentine and pine oil into their component parts and also the production of terpene derivatives. This development is a recent one; but the products now produced are of high purity, and present research indicates further improvements.

Synthetic Camphor

Pinene suitable for the manufacture of synthetic camphor is now produced. This quality was established by research and test and is finding favor in the production of special chemicals as well as camphor.

Dipentene, a relatively stable terpene hydro-carbon, is now made of standard quality. It is used chiefly in the reclaiming of rubber where a reclaim of high tensile strength is produced with a short time of devulcanization by the use of relatively small quantities of this terpene. Dipentene possesses excellent solvent power over gums and resins, and while it evaporates slightly slower than turpentine, the usual drying time for varnishes and paints is all that is necessary for a coating containing dipentene.

Fenchyl alcohol, a relatively new product of commerce, boiling point approximately 200°C, is now made and used for its odor value which is that of old pine wood. It serves as a raw material for the production of fenchone which has value as a solvent in pyroxylin plastics.

Terpene Products

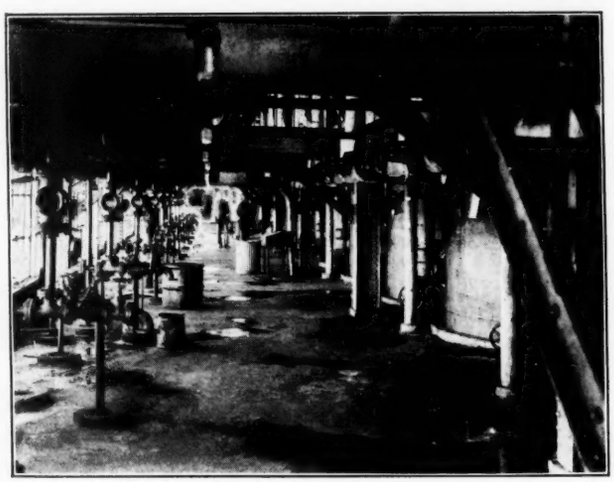
Borneol is another terpene product now manufactured. It is suitable for the production of its esters, such as acetate, and can be converted readily to synthetic camphor.

Alpha terpineol crystals, possessing a pleasant odor suggesting elderberry flowers, are now produced in quantity. This chemical is made with a high degree of purity and is found to possess the desirable characteristics of pine oil and at the same time to be free from the pine odor. Its value as a perfume is not as high as commercial terpineol, but as a raw material for esterification or where pleasant odor, high germicidal action, and solvent power are desired, alpha terpineol is found to give good results. The development of an efficient manufacturing cycle has made alpha terpineol available at an attractively low price.

A New Wood Rosin

The wood rosin normally produced by the steam and solvent process is dark in color. It is consumed in those industries where the lightest colored products are not desired. Wood rosin has as its chief ingredient abietic acid, which is the major constituent of American rosins.

Research covering a period of years has resulted in the commercial production of a new wood rosin



Interior view of plant, showing upper floor of extractor house with battery of extractors

Part of the Hercules Powder Co. plant at Hattiesburg, Miss., where steam distilled turpentine, rosin and pine oil were produced. Wood supplies in foreground, barrels of rosin in left middle distance

of medium grade and high acid value. This rosin grades "I" on the American scale. It is an approach toward pure abietic acid and has found an immediate response from the industrial consumer. It has opened a new type of application for rosin in consuming channels because of its freedom from foreign matter and because of its relatively high resistance to heat treatment.

An Insulation Saver

The discovery of the process which is being employed for the production of "I" wood rosin has opened a wide field in rosin technology. As a development based on this discovery, commercial abietic acid has been produced. This material can be incorporated with the impregnating oils used in the manufacture of cable, and because of the very high dielectric strength, which is imparted to the cable by the use of commercial abietic in the cable compound, will make possible the transmission of higher voltage electric power without the danger of rapid deterioration and breaking of the insulation in the short periods which have been experienced in the past.

A Black Rosin Produced

The production of "I" wood rosin from "FF" wood rosin produces simultaneously an almost black rosin called "B" wood rosin which is clean, free from dirt and trash, has a high melting point, low acid number, a relatively higher density, and is tough in character. One of the chief characteristics of this rosin is its relatively higher resistance to solution in gasoline, and, in addition, the resistance of its esters, especially the glycerol ester (ester gum) to the action of petroleum solvents. This rosin has been successfully used in varnishes of the black baking type, in the production of emulsions, especially asphalt emulsions, and for sizing the darker grades of paper.

Another development of significance is the commercial production of ethyl abietate, a liquid resin, and other esters of abietic acid which have not, up to recently, been available in commercial quantities.

The possibilities of these new materials are as yet in their embryonic stages, but research on the part of prospective consumers is opening up a very wide field of application for these new products.

Zinc conference delegates at Ostend adjourn without arriving at definite arrangement for world cartel. Overproduction and large accumulations of stocks have lowered prices. Purpose of conference was to induce German and American producers to enter into working agreement with European factors.

Failure of conference is attributed to attitude of German and American interests in refusing to agree to 25% reduction in production and Germany's insistance on high tariff on zinc importations to protect Silesian production. Considerable American capital is invested in the Silesian fields.

German cellulose lacquer manufacturers form buying syndicate, Interessenverband Deutscher Lackfabriken, for purchasing raw materials cooperatively, research and marketing. Organization comprises Winkelman, Hamburg, Herbig-Haarhaus, Cologne, Zoellner, Berlin, and Tempoloid, Berlin. Dr. Bernhard Frowein is general manager. Address: 57 Berlinerstrasse, Berlin-Charlottenburg.

German Superphosphate Sales Syndicate is not renewed, due to failure to agree on quotas. Association of German Fertilizer Manufacturers, Hamburg, resumes its interest in superphosphate trade.

Swiss dyestuffs imports, first quarter 1930, are valued at 4,842,576 francs, slight decline from 4,990,693 for same period 1929. Exports increase to total value of 21,174,501 francs from 20,466,533 in 1929.

Japanese alkali and bleach manufacturers curtail production, Osaka Soda Co. reducing output of caustic soda and bleaching powder about 37 per cent, resulting in heavy accumulations of unsold stocks.

Beryllium deposits recently discovered in Koeslach mines, Austria, will be mined by Beryllium Co., New York and Cologne.

The largest installation of chlorine cells in the world, at the Westvaco plant, South Charleston, W. Va.

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LUCIEN C. WARNER, a practicing physician of McGrawville, N. Y., little realized that he was attending the birth of one of the large and important chemical manufacturing companies of to-day, when early in the last half of the nineteenth century the lure of adventure brought him to the barren coast of French Guiana.

The technically trained mind of the physician, however, grasped the economic significance of the phosphate of alumina deposits existing on Grand Connetable Island, off the Guiana coast. In this uninviting spot, chiefly inhabited by birds, the Warner Chemical Company and affiliated interests first saw the light of day.

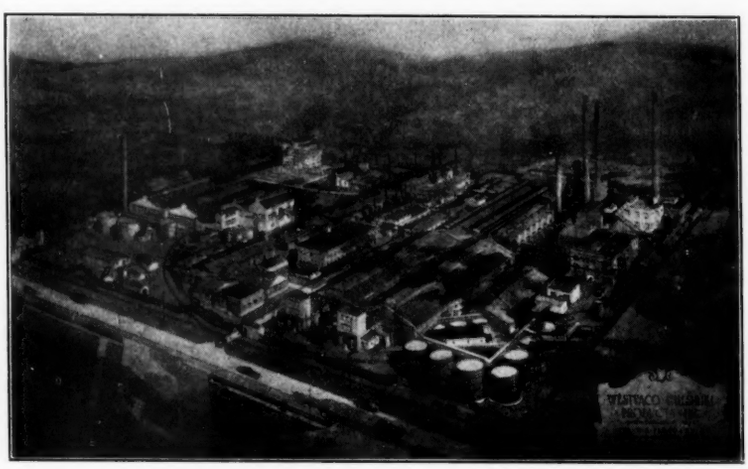
In 1886, Dr. Warner secured a controlling interest in the Grand Connetable Company engaged in the mining of the phosphate of alumina deposits and determined to devote his entire energy to manufacturing chemicals.

Dr. Warner's keen business acumen was further demonstrated when he purchased a large tract of water-front property at Carteret, N. J., a section undeveloped at that time, but now a center of tremendous manufacturing activity and formed a company bearing his name to engage in processing the rock deposit from French Guiana. Phosphoric acid and tri-sodium phosphate were the early products produced and Warner was one of the first if not the very first manufacturer of the tri-salt in this country. Disodium phosphate, both commercial and U. S. P., and aluminum hydrate were added to the list shortly afterwards.

W. B. Thom, President, Warner Chemical Co. and Westvaco Chlorine Prod. Inc.

Far reaching in its effect on the subsequent history and development of the company was the business and personal friendship formed between Dr. Warner and William D. Patten about 1900. Patten, discoverer of a patented process for the production of mono-sodium phosphate pyro, was searching for a suitable manufacturer for his product and impressed with the plant and equipment and likewise with Dr. Warner's personal ability and integrity entered into a business relationship that lasted until Dr. Warner's death in 1925.

The success of mono-sodium phosphate pyro was



South Charleston, W. Va., plant of Westvaco Chlorine Products, Inc.

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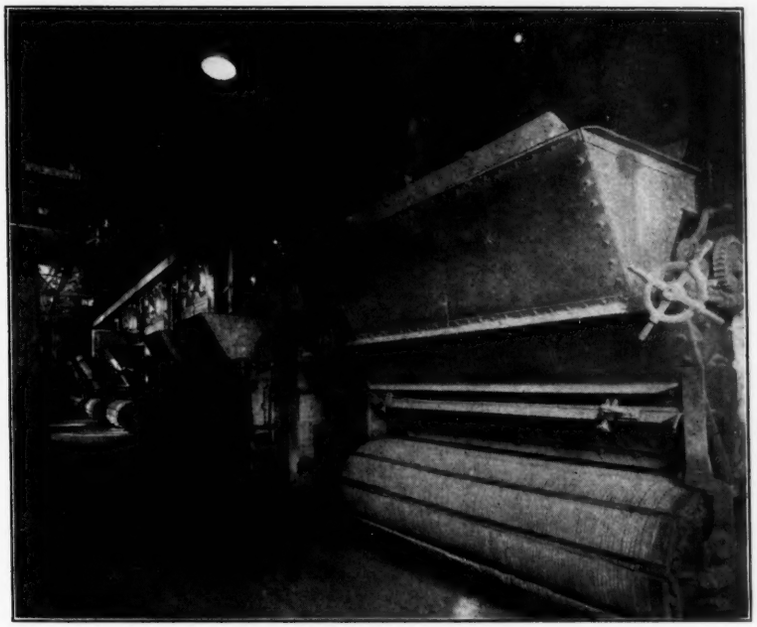
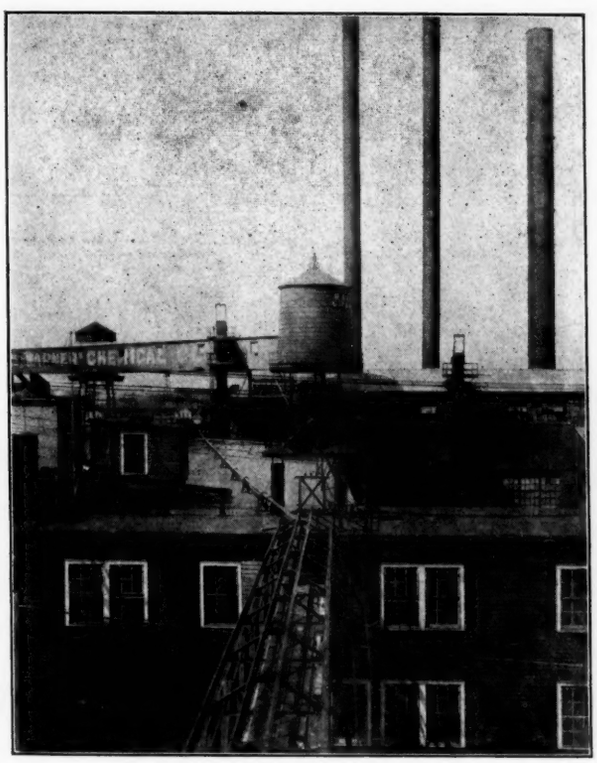


Boiler room, supplying power for phosphates production at the Warner plant, Carteret, N. J.

instantaneous as a new leavening agent and substitute for the more costly cream of tartar. Construction of additional facilities was commenced immediately and a new subsidiary company created. The Monarch Chemical Company continued the exploitation of this important chemical and for many years was the sole producer which position it enjoyed until many years later when patent protection ceased. To-day it is still the world's largest producer.

As the progress of the company continued, production of vanillin, salol, phosphorus trichloride, phosphorus oxychloride, acetyl chloride, acetic anhydride and carbon tetrachloride were announced. Commercial introduction of silk weighting led to a tremendous increase in the demand for disodium phosphate and the progress of trisodium phosphate in the cleansing fields forced the company to several expansions of its phosphate manufacturing facilities.



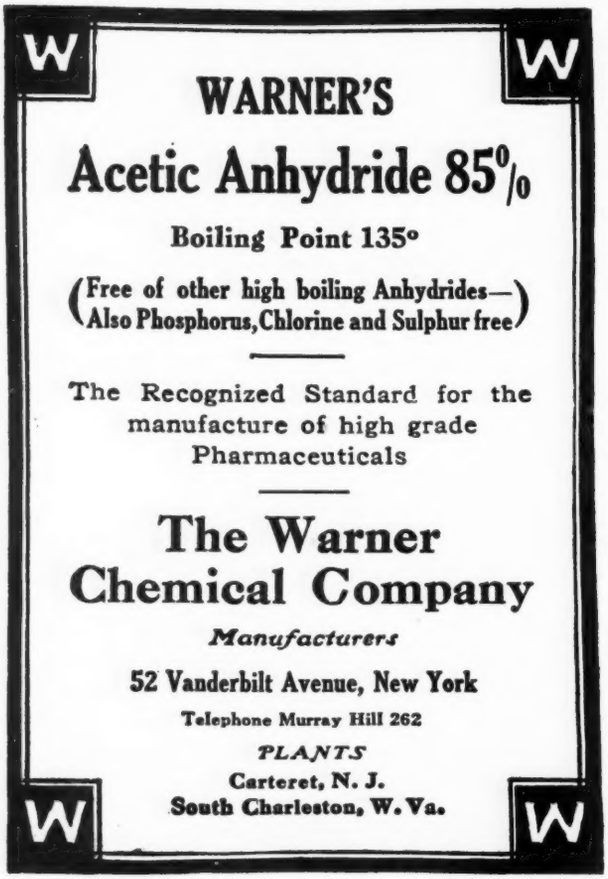
Warner Chemical Co. plant, Carteret, N. J.

Of greatest importance however, was the success of the electrolytic cell for the production of chlorine and caustic soda. A small installation at Carteret proved so successful that property was purchased in 1915 at South Charleston, West Virginia, a most favorable location due to the cheap fuel and power together with available natural brine. A new company was formed to produce caustic soda, chlorine, carbon bisulphide, carbon tetrachloride, sulfur chloride and allied chemicals. This factory, now the Westvaco Chlorine Products, Inc., has expanded enormously since its modest beginning in 1916 and to-day boasts the largest electrolytic cell installation in the world.

Increasing demand for electrolytic chlorine plants caused the company to enter the equipment field. Warner Chemical Company now not only builds and installs chlorine cells and attendant apparatus, but also designs and supervises construction of complete plants manufacturing chlorine, caustic soda and chlorine compounds. Before the United States entered the World War more than twenty such installations, some of them very large, were sold and installed in a dozen states in this country and in Canada, Japan, Australia, India and Norway.

When the United States entered into the War and decided to build the most extensive toxic gas plant in the World at Edgewood Arsenal, Md., the Chemical Warfare Service contracted with the Warner Chemical Company to design and install the chlorine plant,

which, at that time, was the largest in the World and has only been surpassed by the present huge plant at South Charleston. The company still does considerable business in the equipment field, having only recently been retained in a consulting capacity by the Soviet Government. After exhaustive investigation by agents of the present Russian government a large installation of chlorine cells and other equipment was purchased for the first electrolytic plant to appear in Russia.



Reproduction of Warner Chemical Co. advertisement in CHEMICAL MARKETS *in 1920*

Dr. Warner died in 1925 and for the next few years his son, Franklin H. Warner, was president of the company. In 1928 a reorganization and merger of the various interests was effected by the present management headed by William B. Thom, then secretary of the Warner Chemical Company, who became president. At the same time the United Chemicals, Inc., was formed as a holding organization to control the financial aspects of the various companies and to serve as a ready medium for the acquisition of new enterprises. This consolidation now controls and operates twenty-four different plants in the United States and Canada and has become an important factor in the heavy chemical and chemical equipment field.

Warner's growth has mainly come from within. While lacking perhaps spectacular acquisitions by outright purchases or exchange of stock it has been fortunate to escape the confusions and duplications that usually accompany such action. It has quietly consolidated its position in the chemical industry through constant improvement of its products and processes and by plant enlargements when the need of such became apparent.

Dr. Warner, when forming his company over forty years ago, stressed the importance of strict adherence to the motto of "Quality, service and fair dealing", and the policy which he laid down then is still the policy of the present management. The present officers are William B. Thom, president; William D. Patten, A. M. Pitcher and Louis Newberg, vice-presidents and M. E. Gilbert, secretary and treasurer.

Rayon Production Shows First Decided Drop in History

Rayon production will show a decided drop this year for first time in history of the industry. Drastic steps have been taken to curtail production so that excessive inventories will not cause further price reductions. Such action has been possible due to comparatively few producers in the field.

The industry is now operating at 45% to 50% of capacity. Viscose Corp., which accounts for nearly half of the country's total production is operating on a 50% basis, DuPont 45%, Tubize 50% and Industrial Rayon 52%. Smaller producers are operating at even lower figures.

Rayon production in 1929 totaled 123,000,000 lbs. and the estimated output for 1930 was estimated at 162,000,000 lbs. Should however the present restricted schedules be continued throughout the year production will not go above 75,000,000 or 80,000,000 lbs. Such action will undoubtedly strengthen price structure. Output for first six months of 1930 was about 40,000,000 lbs. against 55,000,000 lbs for same period in 1929.

American mills consumed 100,000,000 lbs. in 1928 and 140,000,000 lbs. in 1929. In spite of European surplus, American manufacturers appear hopeful of buying revival in the near future.

	1930	*1929*	*1928*	*1927*
Viscose Corp.	70,000,000	62,000,000	54,000,000	40,960,000
Du Pont Ray.	27,000,000	24,500,000	18,161,000	15,062,000
*Tubize	9,000,000	8,500,000	8,500,000	7,500,000
*Am Chatillon	6,500,000	750,000	.....	.....
Indus Rayon	11,000,000	6,000,000	4,250,000	3,600,000
Celanese	6,500,000	6,000,000	5,000,000	3,500,000
Am Glanzstoff	9,000,000	3,850,000	350,000	.....
Am Bemberg	4,000,000	2,500,000	2,100,000	1,200,000
Amer Enka	5,000,000	625,000	.....	.....
†Total	162,000,000	123,000,000	97,000,000	75,000,000

*Tubize and American Chatillon have been merged this year. A substantial interest in Glanzstoff, Bemberg and Enka is owned by the Associated Rayon Corp. and the same interests are thus active in the management of all three of these companies. †Includes miscellaneous producers.

Cadmium produced in Canada is obtained as a by-product in production of zinc by Consolidated Mining & Smelting Co. of Canada, at their Trail, British Columbia plant. This company produced metal for first time early in 1928 with recovery plant having capacity of about one ton of refined cadmium a day. It treated accumulated cadmium residues from the zinc plant. New plant completed in the autumn of 1929, with a capacity of 1½ tons of refined cadmium a day, treats the regular output of the zinc plant. Canada's progress in cadmium production and value of this new branch of mining industry is indicated in Dominion Bureau of Statistics figures. In 1928 production amounted to 491,894 pounds valued at $341,374 In 1929 output had risen to 773,976 pounds valued at $696 579.

Societa Alsacienne et Lorraine de Recherches Minieres uncovers near Oberbergheim potash deposit promising to provide unexpected and important competitive field of operations in the immediate neighborhood of the Kali-Sainte Therese mines, jointly operated by Government and private interests.

Nominated *for the* Chemical Markets Medal

EDWIN M. ALLEN
By George Ade

L. H. BAEKELAND
By Michael I. Pupin

HERBERT H. DOW
By Henry Ford

PIERRE S. DU PONT
By John J. Raskob

GEORGE EASTMAN
By Thomas A. Edison

Commemorating the Tenth Anniversary of Williams Haynes as publisher of CHEMICAL MARKETS a gold medal has been designed and will be awarded by vote of the readers to the man who has rendered most distinguished economic services to American chemical industries. For this honor the chemical executives named above have been nominated. Inside are brief sketches of their lives and statements setting forth their achievements. Ballots to select the medalist will be mailed to all CHEMICAL MARKETS subscribers of record up to September fifteenth, 1930.

E. M. Allen

President, Mathieson Alkali Works

At the present time Edwin Madison Allen is President of the Mathieson Alkali Works, a large and important corporation. To his old friends, he is still "Eddie" Allen, youthful in appearance and youthful in manner, but a most unusual character and, we believe, an executive of rare genius.

"Eddie" came to Purdue University from Richmond, Indiana. He was one of our most brilliant students. He helped to pay his way through college by selling prison-made bicycles, with which a LaFayette firm was overstocked. He graduated with honors and began his career as a common machinist in Pittsburgh. Later he was a draftsman. He never had any capital to back him and what he has accomplished has been due to his industry, his attractive personality, and his sheer ability. He joined the staff of a manufacturing company which sold brick for lining steel furnaces. For a time he was with the Harbison-Walker Company. In 1906 he organized the American Refractories Company and three years later he organized an affiliating company known as the Austro-American Magnesite Company. If any recognition is to be awarded him to-day, it should be remembered that between 1906 and 1919 he did more than any one man in this country to keep the large steel corporations supplied with magnesia and silica refractories. That period took in the time of the World War. It should be told that he discovered and developed important deposits in The Dells near Baraboo, Wisconsin. Also, that if the war had been prolonged, he was ready to deliver magnesite from a remote spot in Sonora, Mexico. He made the American Refractories Company a huge success. I know because I invested modestly and got a welcome profit.

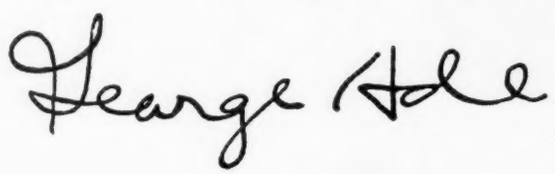
Undoubtedly his big strike in the business world and in the chemical industry has been achieved as the head of the Mathieson Alkali Works.

I am not speaking as an expert—merely as a layman—but I have watched the market quotations, and I have read the figures, and I have seen the pictures of the expanding plant, and I know pretty well that his success has been simply marvelous. I know too, that he has achieved that success because he has been wise, thorough, far-seeing and keen intellectually, even as he was when he capped all of the scholarship records at Purdue. I am attaching some figures regarding the Mathieson company under his presidency, and I believe they are correct and tell their own story. I think he deserves great credit for organizing a selling organization and putting in his own sales force.

It should not be overlooked that President Hoover, himself an engineer, called in Mr. Allen as an advising expert. He represented your industry before the last tariff commission and also eight years ago. His company led in the introduction of liquid chlorine in the pulp, paper, and textile industries—replacing the old bleaching powder. The plant of his company at Niagara Falls was the first to produce synthetic ammonia from waste hydrogen. He has always insisted upon a large expenditure for research. His company originated the hypochlorite process for refining gasoline. And I might go on telling you of these things.

Two years ago the hundreds of engineering students at Purdue joined in an invitation to "Eddie" Allen to come back and be their guest of honor at a whale of a dinner given in the new Student Union Building. He came and was given a mighty reception. No other engineer has ever been accorded a similar honor. We who knew him at Purdue and have watched his advance through all of these years, think that he is a great man and that he is entitled to all of the awards and distinctions which can be given to a man who has made good all of the time and piled up such an imposing total of results. Of course, I am writing as a partisan but I feel that I am a partisan who has something to talk about. As I said before, I now attach certain figures which have come to me from a reliable source:

Mathieson Alkali Works	*1920*	*1929*
Assets	$12,266,368	$21,533,626
Cash	249,132	2,269,918
Net earnings	585,301	3,580,930
Surplus	1,557,348	6,848,128



Mr. Allen was born in Richmond, Ind., June 10, 1876, and educated at Purdue University (B. S. 1896, M. E. 1899). His business career has been: draughtsman, Cambria Steel Co.; treasurer, Basic Brick Co.; president, American Refractories Co.; managing director, Austro-American Magnesite Co.; president, Great Western Ore & Mining Co.; president, Commonwealth Chemical Co. and president, Mathieson Alkali Works, which under him has been first producer of synthetic ammonia from waste hydrogen; originator of the hypochlorite process for oil refining; introducer of H. T. H., an improved form of bleaching powder. He represents chemicals on the Hoover Industrial Conference Board.

L. H. Baekeland

Chairman and President, The Bakelite Corporation

IT GIVES me a great pleasure to second the nomination of Dr. Leo Hendrik Baekeland for the Chemical Markets Medal.

Dr. Baekeland's contributions to the chemical science, and particularly to the chemical industry, are many. I shall mention here only two which were epoch-making. The first one was the invention of the Velox paper which advanced the photographic art radically. Its influence upon this art can be compared very aptly with the influence which the Bessemer process had upon the steel industry. The invention of the Velox paper opened a new era in photography, an era in which the moving pictures and the talking movies became a practical possibility. These arts would have been impossible without the chemistry first disclosed by Dr. Baekeland in connection with the development of his Velox paper, and developed later by the Eastman Kodak Co. who were the first to recognize clearly the great merits of this invention, and to purchase it, paying Dr. Baekeland a very handsome sum.

The second epoch-making invention which Dr. Baekeland contributed to the chemical industry of this country, is his invention of the Bakelite in 1906. It is, as well known, a synthetic phenolic resinoid obtained by the action of phenol upon aldehydes. It is a super-resin which nature never furnished. Its various types are broadly useful in nearly every phase of human activity. They are now used for electrical purposes and endless other industrial applications where natural resins, rubber, or celluloid are unsuited. These applications range from radio and wireless telegraphy and other electrical devices, to gears, grind-stones, airplane propellers, self lubricating bearings, jewelry and ornamental articles, instruments of precision, varnishes and paints, etc. In fact, in all cases where rubber or former plastics, although cheaper, are insufficient or unsuitable. Bakelite as an insulator in electrical operations of every kind is known to everybody who has had any contact with these operations.

Permit me now to submit the following list which speaks more eloquently than any story can speak about Dr. Baekeland's career as a scientist, engineer, inventor, and man:

B.S., D.Sc., Ghent, 1884; Laureate of the four Belgian universities, 1887; Hon. D.Ch., U. Pittsburgh, 1916; Hon. D Sc., Columbia U. (N. Y.), 1929.

Achievements in professional, public, military, literary, or artistic career:

Hon. Professor, Columbia University in New York.
Member of Board of Trustees, Institute of International Education.
National Research Council.
Since 1915—Member Naval Consulting Board of the United States.
President Bakelite Corporation.
1904—President Chemists Club, New York.
1905—Vice-Pres. Society Chemical Industry (London).
1909—President American Electrochemical Society.
1912—President American Inst. Chemical Engineers.
1912—President Section of Plastics, International Congress of Chemistry.
1914—President of Inventors' Guild.
1917—Member U. S. Nitrate Committee.
1924—President American Chemical Society.
Since 1925—Member of the Advisory Committee on Chemistry of the U. S. Department of Commerce.
Johns Scott Medal, Franklin Institute—1910.
Willard Gibbs Medal, American Chemical Society, Chicago Section—1912.
Chandler Medal, First Award, Columbia University—1914.
Grand Prize, Panama Pacific Exposition—1915.
Perkin Medal for Industrial Chemical Research, 1916.
First Chandler Lecturer Columbia University on occasion 50th Anniversary of School of Mines—1914.
U. S. Delegate in International Congress of Chemistry, London 1909.
Officer of the Crown of Belgium—1919.
Officer of the Legion of Honor, France—1923.
Commander of the Order of Leopold, of Belgium—1924.

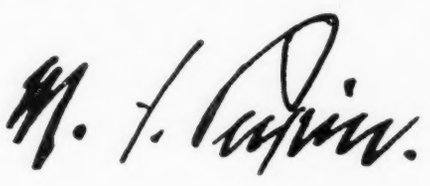
Memberships:

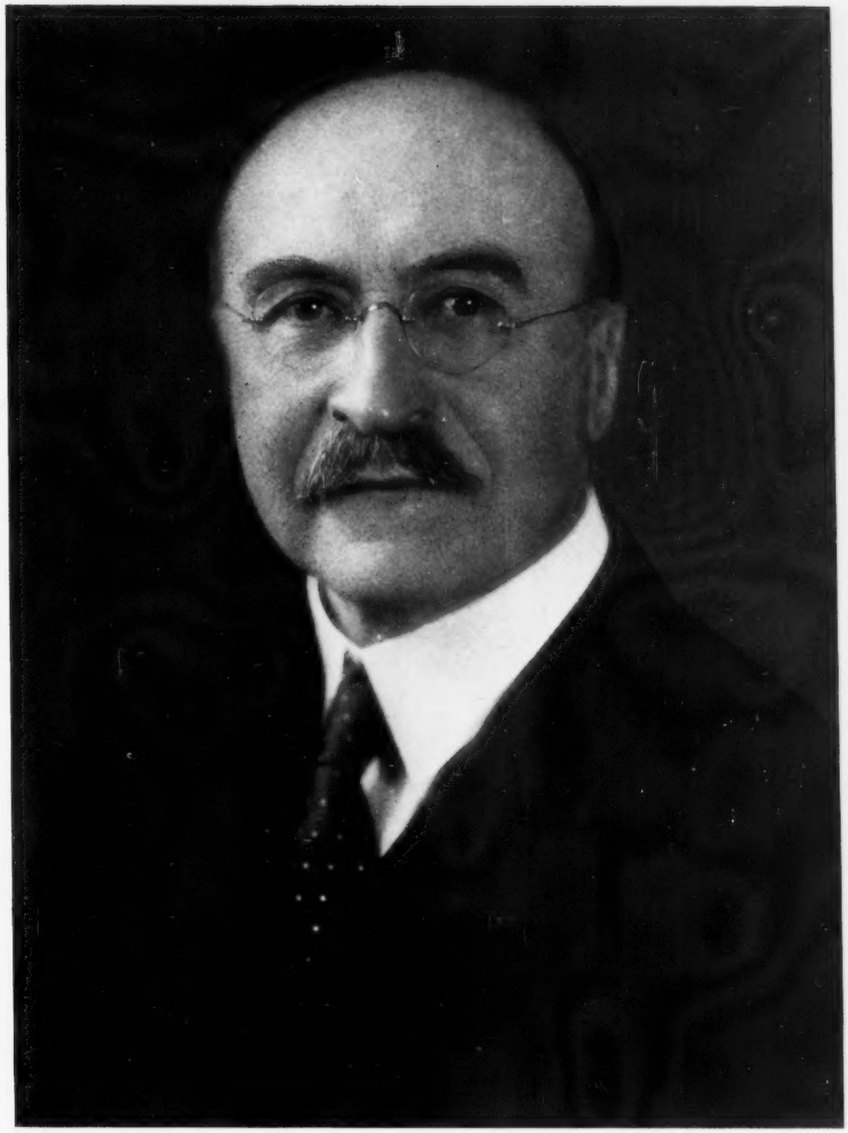
Society of Chemical Industry, London.
American Association for the Advancement of Science—Life Member.
Societe Chimique de France—Life Member.
Societe de Chimie Industrielle—Life Member.
Franklin Institute.
American Chemical Society.
American Institute of Chemical Engineers.
American Electrochemical Society.
Hon. member Phi Lamba Epsilon, Sigma Xi, and Tau Beta Pi.

Clubs:

Chemists, University, Century Association, Columbia University, Columbia Faculty Club, Cruising Club of America. (all New York), Cosmos Club (Washington), Larchmont Yacht Club, Biscayne Bay Yacht Club.

Publications relating to research in theoretical and applied chemistry covering physical chemistry, photochemistry, electrochemistry, and organic chemistry. Patent Reform. Many patents, U. S. and abroad, on the subjects of organic chemistry, electrical insulation, synthetic resins, plastics, etc.





Born at Ghent, Nov. 14, 1863, Dr. Baekeland was an honor student at the University of Ghent (B. S. 1882, Sc. D. 1884). He was professor of chemistry in Belgium, 1885-9; and since 1889 has been manufacturing and consulting chemist in this country. He founded and conducted The Nepara Chemical Co. (Velox) 1893-99, now a division of the Eastman Kodak Co. He helped to develop the Townsend electrolytic cell commercially and invented Velox and Bakelite. He has served as a member, Naval Consulting Board since 1915; Nitrate Supply Comm., 1917; Chem. Advisory Com., U. S. Department of Commerce.

Herbert H. Dow

President, Dow Chemical Company

I AM glad to place in nomination Herbert H. Dow for the Chemical Markets Medal. He is a trained technician and a sound business man combined in a great chemical executive.

More than one hundred chemical and metallurgical patents standing in his name attest his achievements as an inventive chemist. The vast plant at Midland, built on the foundations of processes he invented, is proof of his managerial and executive qualities.

From a single raw material—the brine of northern Michigan—his company makes and successfully markets more than 200 different chemicals. This great chemical enterprise has been built within a single lifetime, which is in itself a tremendous achievement, yet I would especially emphasize the economic service he has rendered not only to chemical production but to American business at large. He has been a leading exponent of mass production in his field and he has recognized that the essential role of chemicals in industry is to reduce the costs of finished goods.

Not content with the production of bromine, Dr. Dow many years ago began deliberately building up a new chemical manufacturing economy upon the basis of the raw materials wrested from the native brine, notably sodium, calcium, magnesium, and chlorine, with the practical result that he has made the laboratory more and more the helper of public comfort and prosperity. However clever the chemical process, Dr. Dow's work was not completed until he had produced a marketable chemical at a cost lower than had been possible by existing orthodox methods.

He has himself revealed the principles of this American industrial development in chemical operations. In his acceptance address as recipient of the Perkin Medal he pointed out the four basic economies of mass chemical production:

"The most conspicuous labor-savers in a chemical plant are: (1) larger equipment, to cut down the expense of chemical control and operating labor per unit of product; (2) automatic analysis, to save the labor expense of chemists making routine analytical tests at regular intervals and to secure results more quickly and more exactly, with the chance of error due to the personal factor reduced; (3) automatic operation of the equipment, which is governed by the automatic analyzer, all leading to the final desideratum; (4) a continuous process which is both automatically controlled and operated. There are, of course, other means for labor-saving, such as the economic application of human motion study, the coordination of supplies, and other ways for increasing the effectiveness of the human element, but such measures are less important in operating large-sized chemical equipment having a very large output per man employed as direct labor than in the case of machine processes involving manual operations. The chemical industry may seriously consider, therefore, only the large factors in labor-saving which make it possible to pay higher wages and at the same time give the consumer more for his money and also increase dividends."

It has been Dr. Dow's policy promptly to translate the lower costs thus achieved into lower prices. He has played a full part in reducing chemical costs to the consuming industries and thus has helped American industry to supply the ultimate consumer with better goods at lower prices.

I nominate him for this Chemical Markets Medal because he is a most distinguished and successful representative of the American chemist who is also an executive, an engineer, and a manufacturer. As technician, and as business man, his policy is founded upon a rare conception of chemistry's place in our national economics.

Henry Ford.

Dr. Dow was born in Belleville, Ont., Feb. 26, 1866, and educated at Case School of Applied Science, 1888, (D. Sc., hon., 1924). He taught chemistry, 1888-9; founded Midland Chemical Co. (bromine) 1890; and Dow Process Co. (bleaching powder), both absorbed by Dow Chemical Co. in 1897. He discovered first electrolytic process for making bromine and "Dowmetal" (magnesium alloy). He was the first American manufacturer of carbon tetrachloride (1900) and indigo (1917); is the largest manufacturer in the world of brominated dyes, metallic magnesium, and phenol; and he has developed processes for aniline and phenol direct from chlorobenzene. Dr. Dow served during the war on the Chemical Committee of Council of National Defense and the Chemical Alliance. He was awarded the Perkin Medal (American Chemical Society) last year.

Pierre S. du Pont

Chairman, E. I. du Pont de Nemours & Company

SHORTLY after the Armistice, Pierre Samuel du Pont, as president, named sixteen executives of E. I. du Pont de Nemours & Company as the men chiefly responsible for the splendid record of munitions production and of expansion into new fields which the company had made during the war. By omitting himself, his associates agreed that he had left out the single most important figure in an industrial achievement that has transformed a comparatively small, family-owned powder manufactory into the largest chemical enterprise in the world.

That modesty of his is wholly typical, so that only those most closely associated with him know how vitally he has contributed to the chemical development of American industries.

His was the vision of the chemical expansion of his own company. His far-thought plans have added logically, link after link, to the chemical chain of Du Pont products.

His spirit of co-operation in industry permeates the organization he built up. He makes common cause with his competitors, big and little, in increasing fundamental chemical research; in supporting commercial and scientific associations; in establishing competition upon a constructive rather than a destructive basis.

He is personally keenly interested in safety work among all kinds of chemical laborers and in educational work through the public schools. He is markedly of the new school of chemical industrialists far removed indeed from the old type of secretive, combative, selfish capitalist.

To render "distinguished economic service to chemical industry", or to any industry, a man must have had background; must have personality, perseverence, the organizing ability which welds workers together into a single force for achievement; public spirit which looks to the good of humanity through the upbuilding of his business; he must have clear vision, and he must be backed by capital to bring his visions into physical being. He must, in short, be not only a worker but an executive of the highest type.

Pierre Samuel du Pont can be set apart as one in whom these qualifications are to be found in a marked degree.

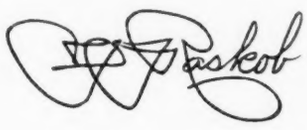
The Du Pont background was one of interest in the public good. Back in the eighteenth century the Du Ponts in France were economists, publicists, and scientists. The founder of the Du Pont business in this country was a chemist and had learned powder making in the French government's factories under Lavoisier. When he came to this country he was equipped scientifically and mentally for the work he undertook here in 1802. These qualities came down in an unbroken line to Pierre, who was the sixth of the family to head the business.

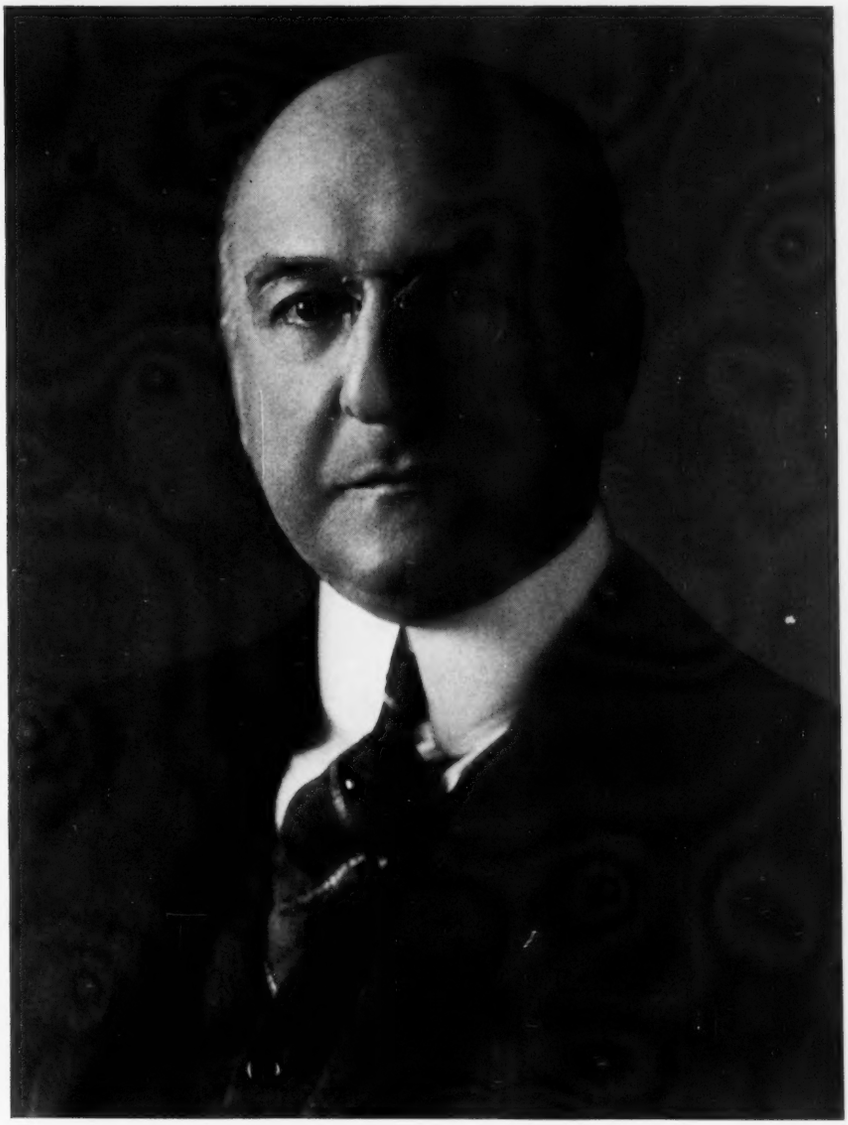
Before he became the executive head of the company, Pierre had done notable work in the development of smokeless powders and was deeply interested in the various steps through which the company became the leader in the manufacture of modern explosives and of allied pyroxylin materials.

Then came the World War which found him, as president of his company, burdened with the complex problems of expanding to meet an unprecedented demand for munitions. But much more was accomplished than the mere supplying of this need. A great chemical personnel was built up ready and able, even before hostilities ceased, to solve chemical problems of such magnitude as the world had never faced.

Mr. du Pont gives the credit for the success of his administration to his associates, but the fact remains that the organization is imbued with his spirit and keen to materialize his visions of future greatness.

Finally he would not deserve this award from the chemical industry if he did not believe, as he most sincerely does believe, that "business is an engine of human welfare designed for national prosperity by paying high wages which finance heavy consumption."





Eldest of three brothers, Pierre S. du Pont was born in Wilmington, Jan. 15, 1870. He attended Penn Charter School, Philadelphia, and Massachusetts Institute of Technology (B. S. 1890) and has received honorary LL.D. from Lafayette and University of Delaware. He began business as a chemist with the Du Pont Co., 1890; and assistant superintendent smokeless powder works, 1892; chemist, Johnson Co., Lorain, O., 1899; Du Pont Co. treasurer, 1902; president, 1915-1919; chairman, since 1915 and he is chairman, General Motors Corp. He is a member, Delaware Board of Education (1919-1921) and Delaware School Tax Comm. Under his leadership Du Ponts have entered chemical fields with dyes, cellophane, rayon, paints, lacquers, and by consolidation with Kentucky Alcohol, Harrison, Grasselli, and Roessler & Hasslacher have become an important factor in heavy chemical and solvents manufacture.

George Eastman

Chairman, Eastman Kodak Company

As THE outstanding pioneer in chemical process industry Mr. Eastman has rendered distinguished economic service not only to the chemical industries, but to the world.

In the most practical way possible he has demonstrated the true purpose of the sciences of chemistry and physics, namely to make this world a safer, a more comfortable, a more pleasurable home for mankind. He found a new use for chemicals for us all. In doing so, he not only found new applications for chemical processes in industry and discovered new markets for chemical products; but he also pointed the way of the future for the development and expansion of chemical industry.

A splendid financial reward has come to him. Within our economic system this serves as a measure of the value of his services to society and industry, a gauge of his ability as executive and financier. But one need not be his intimate personal friend—as it has been my happy privilege to be for many years—to know that George Eastman recognizes that money is but the yardstick of success and that it is valuable only as the means to further accomplishment and for greater service. The simplicity of his habit of life, his generous gifts to art and to education—many of them for chemical and medical research—his friendly, open-handed recognition of the part his associates have borne with him in the up-building of his company; and his liberal profit-sharing with all his employees speak plainly for themselves.

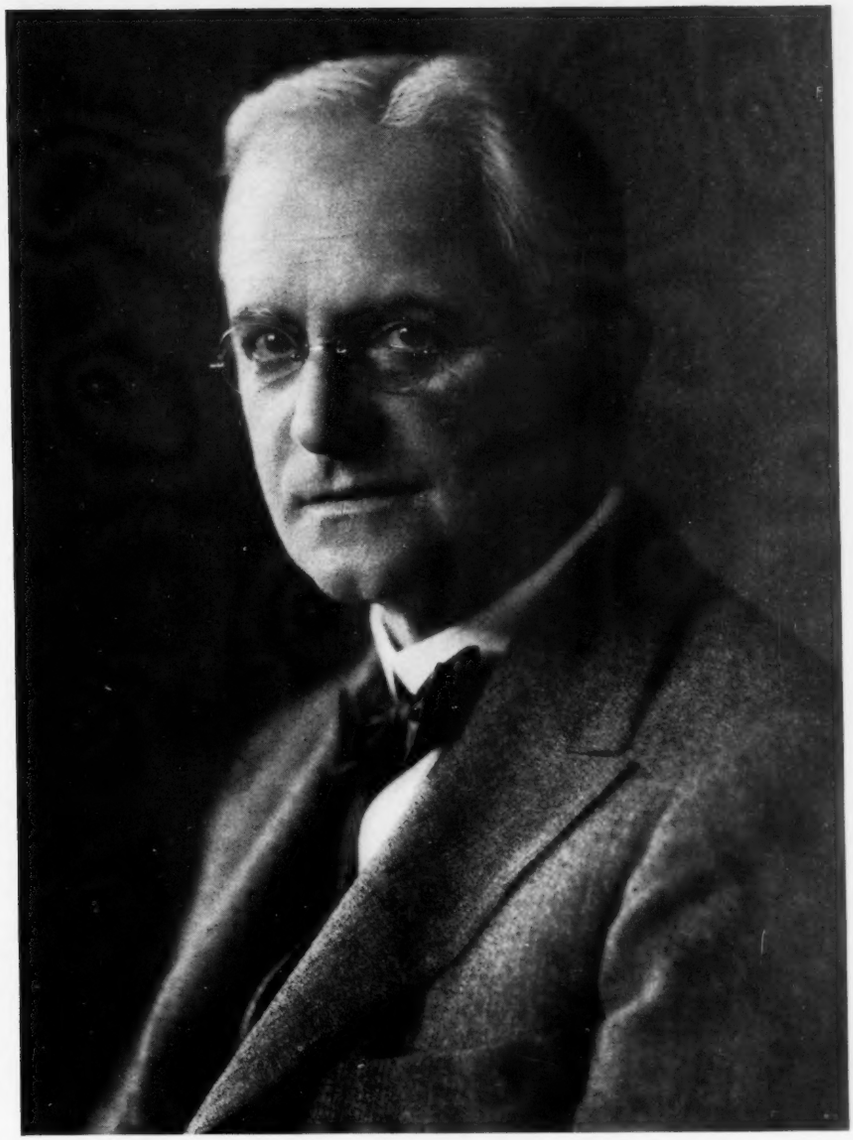
It is not for his conspicuous business success therefore, that I would like to have him win this award for chemical leadership; but for the way in which he has won this success.

From the very first he appreciated that photography is a chemical process. As early as 1886 he could write a friend that he had engaged "a young chemist who devotes his entire time to experiments." He was a very real, a very great pioneer in chemical research directed to industrial problems. At that time and in that early struggling stage of the business, how many men would have employed a chemist whose sole duty was to experiment. I suspect most would have added another salesman to their staff! His vision was broader. He invested of his very limited capital in the salary of a research worker. The chemical industries owe much to his triumphant proof that chemical research pays dividends.

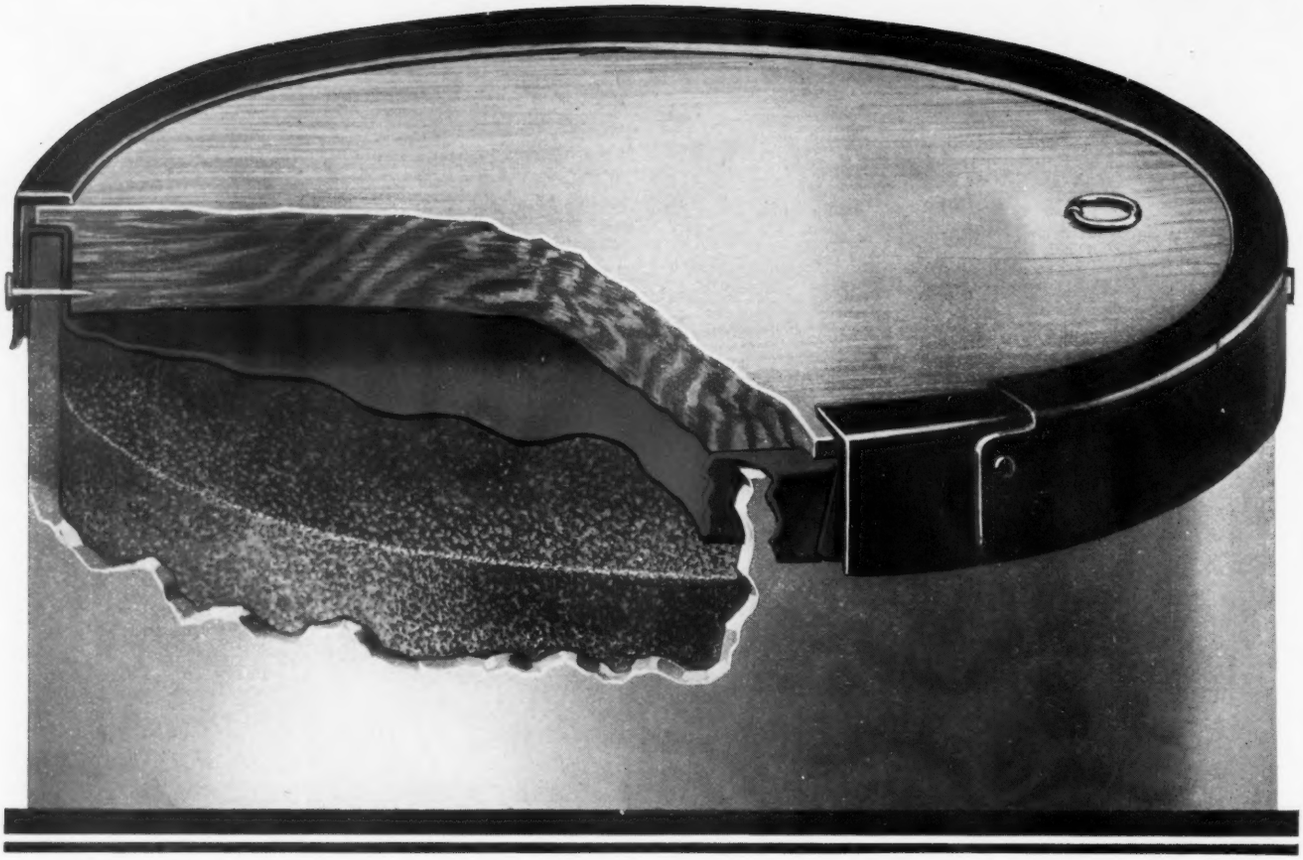
Not only has Mr. Eastman justified chemical research as an investment, but his own research has made substantial additions to scientific knowledge. Nor has he kept this fundamental research a business secret. Doctors Mees and Clarke—to name but two of his chemist-associates—are famous, valued contributors to the facts and theories of pure science. Such contributions to science, without Mr. Eastman's sympathetic cooperation, would not have been made.

Not only has he made research profitable for himself; but he has made it possible for other industries. Recognizing the woeful lack of many synthetic organic chemicals needed as reagents or for experimentation that handicapped American chemical research, he established in 1818, a department for their production. Although it was obvious that the manufacture on a small scale of a great number of complicated compounds was not likely to be profitable, nevertheless, he approved the enterprise and so vigorously was it pushed that at the end of the first year 265 chemicals, most of them never before made in America, were available. Two years later this list had grown to 1,144, and to-day there are available in stock, more than 2,800 items. All information about process and apparatus gained in the synthesis of this multitude of unusual chemical compounds has been made freely available; and the new chemicals have been sold at reasonable prices. No cost or pains have been spared to produce as many different products as possible; so as to fulfill the ideal of maximum service to research.

Quite aside, therefore, from Mr. Eastman's accomplishment as a manufacturer of film and photographic chemicals, I should like to recognize his notable leadership in chemical research. He proved the value of research and he has helped others profit from the new values he has created. As a chemical industrialist he practiced first and then did not preach—save through his good deeds. His career is at once an example and inspiration.



Mr. Eastman was born in Waterville, N. Y., July 12, 1854 and early became an amateur photographer and experimenter. He perfected a process for making dry plates and began their manufacture, 1880; invented the kodak, 1898; and perfected a system of color photography, 1928. He is a chemical manufacturer also, being president of the Tennessee Eastman Corporation, producer of methanol and cellulose acetate, besides making at Rochester a full line of films, plates and photographic chemicals. His support of research won him the American Institute of Chemists Medal, 1929.



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Cobalt Alloys*

CANADA and the Belgian Congo are the two principal sources of cobalt. The total output of all producing countries is at present probably not far short of 1,000 tons, of which Canada and the Belgian Congo each contribute two-fifths, the remaining fifth being supplied by the other countries. While widely distributed in nature, cobalt is invariably found in the presence of nickel, copper, arsenic and iron, which has for many years complicated its economic utilization.

Little variation is noted in recent years in the tonnage originating in Canada, the average annual production having been a little over four hundred tons, but the output of the Belgian Congo has increased from two hundred and seventy-three tons in 1924 to four hundred tons in 1928.

Previous to 1926 the copper-cobalt ore of Katanga, Belgian Congo, was smelted in water-jacket blast furnaces and a black copper was produced which contained practically the entire cobalt content.

In 1926, however, a different method of refining was successfully introduced and now the entire tonnage is handled by this procedure. In this process, by controlling the temperature in the water-jacket furnace down to 1,250 to 1,300 degrees, by using a smaller charge of coke and by increasing the air supply materially, almost all of the copper is reduced to so-called "Black Copper", in which the cobalt content is very small, possibly 0.7 per cent. The cobalt content in this improved process passes into the slag. A rough analysis of the average slag would show 6.5 per cent of cobalt, 5 per cent of copper and 9 to 11 per cent of iron.

This slag, together with ore containing over six per cent of cobalt, which however must not be concentrated, is mixed with four to five per cent of coke and some lime flux and then reduced in an electric furnace of 400 kw. capacity, with upper and lower electrodes. Practically complete reduction of the copper and cobalt and about 75 per cent of the iron takes place. The resulting alloy contains about 30 per cent of cobalt, 30 per cent of copper and about 25 per cent of iron. This is then shipped to the plant of the Societe Generale-Metallurgique de Hoboken at Oolen, Belgium.

At Oolen, the alloy is first heated to 900 degrees centigrade at which temperature it becomes sufficiently brittle to be broken into small pieces in a stone breaker, and then is treated with sulfuric acid, dissolving the cobalt and iron, but leaving the copper undissolved and suspended in the solution. By simultaneous oxidation by air and filtration through a filter press, the iron is precipitated as hydroxide. The cobalt sulfate remaining in solution is converted to the oxide is reduced to the pure metal by standard methods. The capacity of the Oolen plant is in the neighborhood of 300 to 400 tons of pure cobalt metal annually.

Cobalt per se has practically no uses and it is only in the form of its alloys that the real commercial value can be appreciated, aside from the strictly chemical uses of cobalt compounds.

Cobalt-tungsten-chromium alloy has come into much more general use in recent years. This is one of the most abrasive alloys in existence and it has been found that, by means of the electric arc or acetylene torch, it can be deposited on certain surfaces to afford protection from excessive wear, and also in helping building up worn surfaces of iron and steel. Permanent steel magnets are benefited materially by the addition of cobalt permitting the magnet to be made smaller and lighter.

Cobalt-tungsten-carbide alloys are now finding an important use in machining metals at high speeds. Cutting tools with a cobalt content have demonstrated a much longer lease of life than ordinary ones can be expected to have. One of these alloys is said to be made by cementing particles of tungsten carbide with metallic cobalt. A resistance electric furnace is employed. The uses of this alloy are extensive, finding application in cutting threads on glass, in cutting concrete, porcelain and nickel steel. For concrete or rock it has been found to be less expensive than the diamond drill. Comparing the relative hardness using the Brinell scale as a method of determination it is found that tungsten-carbide alloys have a relative hardness of 1,250 and 1,400 against 1,000 for the hardest type of steel now produced commercially.

While a few new sources of cobalt have been reported in the last decade none of these have proven to be commercially of any great value. In the Belgian Congo cobalt ore is generally combined with copper, specially in the Etoile, Ruashi and Luisha mines of the Union Minere du Haut Katanga. Of these mines the Ruashi is, by far, the largest. Ores of high cobalt content are determined principally by a characteristic black color imparted by the oxide. The ore is gone over by hand and ore of about three per cent is concentrated and ore with a higher cobalt content is smelted directly.

*Article abstracted from "Bulletin of Imperial Institute" No. 2, 1930.

Edgar M. Queeny succeeding to the presidency of Monsanto in 1927 is directly responsible for the important acquisitions of recent years

From the "Hub of the M to the World's C

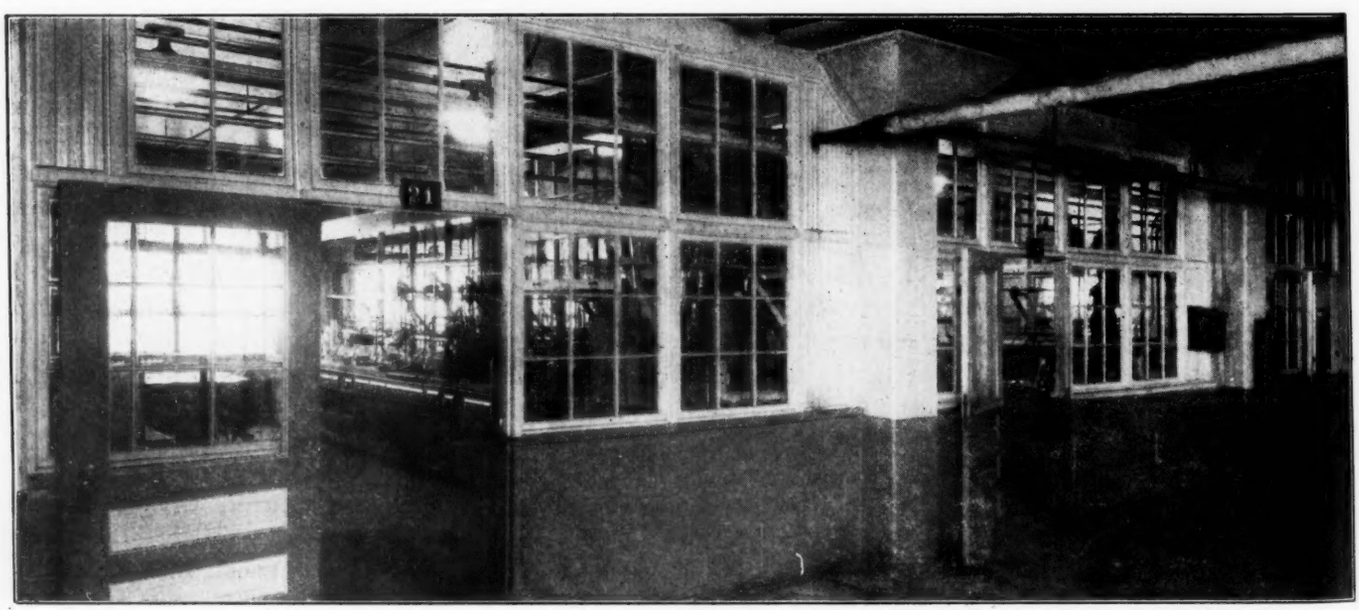
ST. LOUISIANS like to elaborate the fact that the "49th state" is our third largest chemical manufacturing center. No history of this remarkable growth would be complete without the story of Monsanto's rise since 1905 from a small manufacturer of coal-tar medicinal preparations to one of the most important producers of fine, medicinal and industrial chemicals.

Monsanto's early development and likewise a large part of its subsequent growth was in the hands of three very capable men, Jules Bebie, Gaston duBois and John F. Queeny. The first two, supplying the necessary technical knowledge, and the last, the requisite business and sales ability, carried the company through several trying periods of uncertainty.

Like many of its contemporaries, Monsanto was called upon during the war to expand tremendously and with the cessation of hostilities, the need for additional outlets soon became apparent.

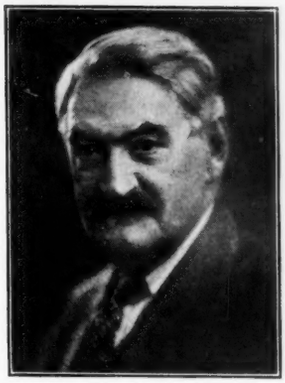
The first step in an ambitous plan of expansion came in 1920 when a half interest in R. Graesser, Ltd., of Ruabon, North Wales, was secured. Established in 1867, Graesser was the world's largest distiller of natural phenol and this move opened up for Monsanto the British market and an important export market throughout the British colonies. In addition to refining phenol, Graesser developed on a high plane the manufacture of xylol, pure pyridene, and other coal-tar products. With the advent of Monsanto's influence, the company undertook the preparation of saccharin, vanillin and salicylid acid to supply a considerable portion of the British colonial and continental trade. Monsanto was thus the first American chemical manufacturer to operate, on a large scale, a plant situated abroad and in 1928 complete control was purchased and the name changed to Graesser-Monsanto Chemical Works, Ltd.

The activities of the English division have been further augmented by several outright purchases. Of greatest importance is that of the Wear Tar Works in Sunderland. Located in the heart of a coal district where the coal tar is rich in tar acids, the annual distilling capacity is in excess of sixty thousand tons of tar and assures Graesser-Monsanto a good supply of necessary raw materials and adds to its list of chemicals, creosote, oil, pitch and naphthalene. Besides the Wear Tar Works, the British Saccharine Company and an important producer of methyl



Emphasis on research has been constantly maintained by Monsanto

Middlewest" Chemical Marketplaces



John F. Queeny, chairman of the board, continues to be a dominant figure in the policies of the company he founded quarter of a century ago

salicylate have been purchased and added to the Graesser-Monsanto group.

In this country the progressive character of the English branch has been more than matched by the activity of the parent company.

In July 1929, Monsanto entrenched itself firmly in the rapidly expanding field of rubber chemicals by the outright purchase of the Rubber Service Laboratories Company and its subsidiary, the Elko Chemical Company, with works located on a thirty-eight acre plot at Nitro, West Virginia. The Rubber Service Laboratories Company is the largest exclusive manufacturer of accelerators and the Elko subsidiary had been manufacturing arttro and para chlorphenol, triphenyl phosphate, sodium sulphite, thionyl chloride which tied up with the regular Monsanto products and these were absorbed into the Monsanto line.

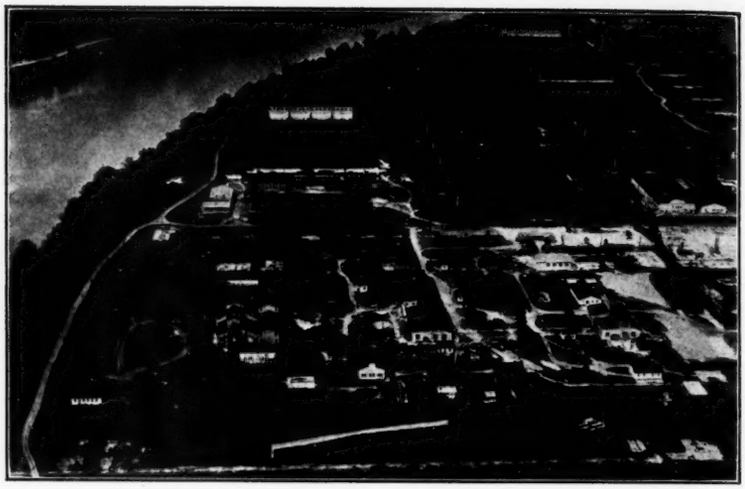
In September 1929 the fine chemical business of the Mathieson Alkali Works, known as their Commonwealth Division, was obtained. This was a producer of vanillin and coumarin, in addition to being the largest manufacturer in America of benzoic acid and sodium benzoate. As Monsanto had developed important new processes in this field the acquisition was timely and of great benefit to Monsanto.

Lastly, but certainly of utmost importance was the union with Merrimac Chemical Company, the oldest and largest producer of industrial chemicals in New England. Manufacturing more than fifty technical chemicals, it is an important producer of sulfuric, muriatic, nitric and acetic acids, alums, glaubers salt and other chemicals necessary to the manufacture of textiles, paper, paint, lacquers, etc. Through the union with Merrimac, Monsanto obtained a manufacturing foothold in the Eastern states, a step long contemplated and desired but one beset with many difficulties. With a splendid tidewater location in Boston harbor Monsanto is now in a competitive position along the entire eastern seaboard. Undoubtedly many chemicals now made exclusively at St. Louis or Monsanto, Illinois, will be standardized and manufactured at Merrimac's plant at Everett.

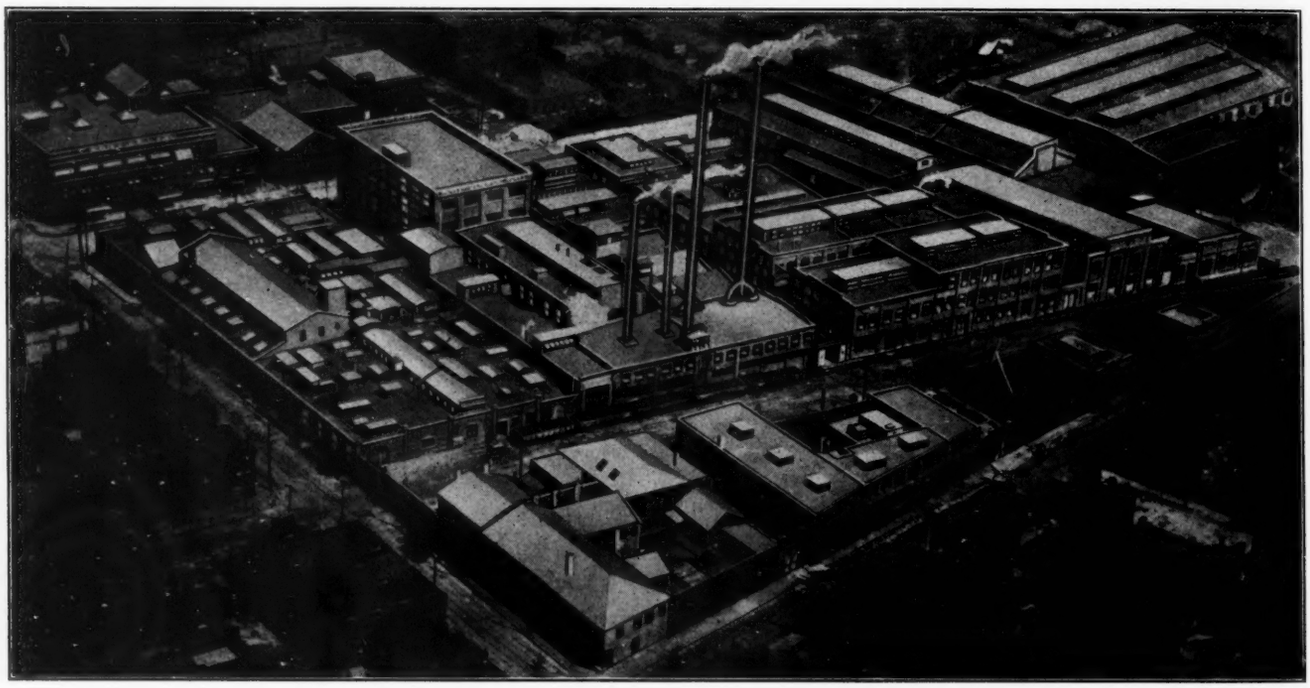
The Anderson division of Merrimac has extended the application of nitro-cellulose lacquers to many new fields and its products are now being used as finishing materials in such widely divergent lines as airplanes, pianos, jewelry, and vacuum cleaners.

Emphasis on research has been constantly fostered and maintained with large appropriations. In 1929 this item amounted to over a half a million dollars

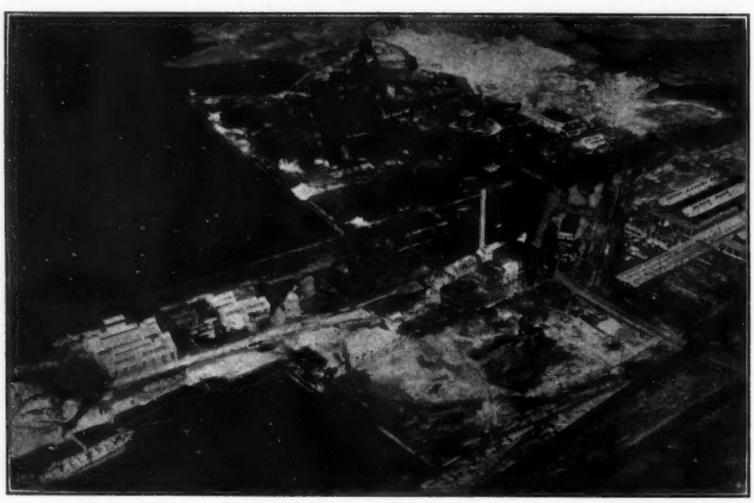
Research Laboratories located at St. Louis plant



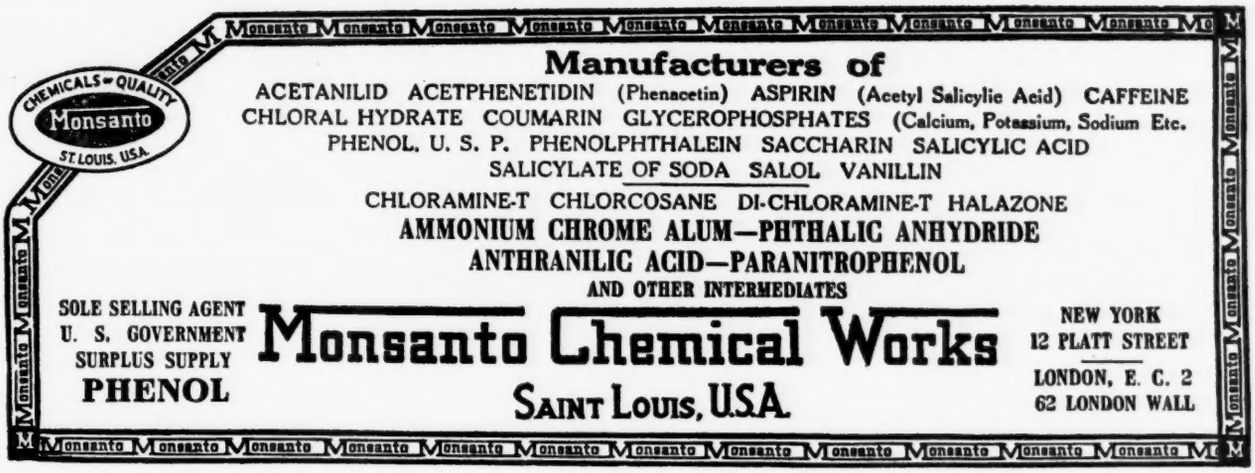
The Elko Chemical Co. plant at Nitro, W. Va., is the largest in the world exclusively devoted to manufacture of accelerators and rubber chemicals



Bird's-eye picture of Monsanto Chemical Co. plant at St. Louis, Mo.



Merrimac Chemical Co. plant at Everett, Mass., brings Monsanto to the Atlantic Seaboard with excellent water-front facilities



Reproduction of Monsanto Chemical Works advertisement appearing in CHEMICAL MARKETS *in 1926*

but resulted in an addition of ten entirely new products. Just as in earlier years Monsanto developed American made phthalic anhydride, phenolphthalein, coumarin and acetphenetidin so in the period between 1920 and 1930 many new products resulted from this liberal research policy.

In the field of medicinals Monsanto, taking advantage of a strong raw material position developed, expanded the so-called salicylic acid group. A new granular form of pure salicylic acid was introduced in 1923 under the name of aspir-gran. This product has the distinct advantage of being ready to tablet with the simple addition of starch, thus avoiding the tedious process of granulation and any danger of decomposition.

The growing need for a stable compound carrying active chlorine was met with chloramine, now used by many industries as an efficient chemical sterilizer. The establishment of a chlorine plant at Monsanto, brought a series of intermediates such as chlorbenzene, dichlorbenzene and several derivatives of these compounds such as paranitraniline, phenetidines and others which are used in the dye, pharmaceutical and insecticide fields.

Monsanto's name is now linked with many new industries using nitro-cellulose and acetyl cellulose through the development of an interesting line of plasticizers and synthetic resins derived from raw materials and intermediates already manufactured in its own works. Another development of importance was Monsanto's invention in 1928 of a new non-platinum catalyst for the manufacture of sulfuric acid. Many acid manufacturers here and abroad are using this process under license.

In 1927 John F. Queeny determined to divorce himself from the strenuous labor of the presidency and signalized his retirement by taking active charge of the Graesser-Monsanto division. At the present time he is chairman of the board. Succeeding to the presidency, Edgar M. Queeny has proven a resourceful leader and it has been under his immediate direction that the recent mergers and consolidations have been brought to such successful conclusions.

The Filter Press

Jamaica ginger paralysis affecting hundreds of people in South and Middle West recently, is traced to a phosphoric acid ester of tricresol added to fluid extract as adulterant.

Dr. Julius Klein, Assistant Secretary of Commerce, accepts invitation to address Drug and Chemical Section, New York Board of Trade, in fall.

Warren N. Watson, secretary, Manufacturing Chemists Association, spends summer traveling over country acquainting himself with members of association and their problems.

Dr. Arthur D. Little, president, Arthur D. Little, Inc., Cambridge, Mass., receives honorary degree of Doctor of Science from Tufts College.

Henry Leffman, Philadelphia chemist, lecturer on chemical research at Philadelphia College of Pharmacy and Science, is elected honorary member, Franklin Institute.

George Eastman, chairman of board, Eastman Kodak Co., is appointed member of George Washington Bicentennial Commission.

Lammot du Pont, president, E. I. du Pont de Nemours & Co., announces his engagement to Mrs. Carolene Pynson Stollenwerck, of Scarsdale, New York, formerly of Wilmington.

Andrew M. Fairlie, consulting chemical engineer, Atlanta, Ga., returns from business trip abroad.

L. R. Smith, president, A. O. Smith Corp., Milwaukee, receives degree of LL. D. from University of Wisconsin.

William B. Bell, president, American Cyanamid Co., is travelling in Europe.

Commodity Prices during the past ten

AUGUST, 1920, was the fateful date when chemical prices swung into the big decline that followed the post-war orgy of frantic buying.

August, 1930, finds commodity prices again in a down-swing movement, but the position of chemicals, now and then, is quite different.

Ten Years Ago

In 1920, chemicals in response to the great stimulus of the exorbitant and imperative war demands had soared to a price level that was distinctly higher even than the average level of all the other basic commodities excepting only foodstuffs. In 1930, the chemical price level, thanks not a little to technical advances and a constantly widening market, is distinctly below the average of other basic commodities. If, as seems likely, commodity prices the world round and in all fields are going to seek a lower level, chemicals have started with an initial advantage.

In 1920, again thanks to the war, plant capacity for chemical manufacture was enormously expanded. A veritable mountain of chemical supplies was being piled up, the moment the feverish demand stopped. Moreover, among the most energetic of the chemical producers were many who have been lured into the industry by the war. Without experience in a normal market but with big cash reserves, they were determined at all hazards to maintain the foolishly inflated output to which they were accustomed. But in 1930 we have already adjusted more reasonably the balance between supply and demand; plant capacity has been brought into line with chemical consumption; dissolution and merger have reduced the number of our chemical manufacturing units.

In 1920 there were big inventories of high priced raw materials and of finished goods in our chemical plants. The consuming industries also had generous stocks of chemical raw materials in their storage bins and their customers, the jobbers and retailers of the land, had shelves literally bursting with manufactured wares of all sorts. In 1930 there is no such glut of goods to make price readjustments slower and more painful.

Throughout chemical industries there is tangible evidence that business is good for a bad year.

And even the bad year itself has its redeeming features, for in the face of the decline in commodity prices and security values, there has been no semblance even of a financial panic. Dividend payments in the first half of the current year were larger than in the first half of the last year. New life insurance written in the first half of this year totaled $6,657,000,000, a gain of nearly 2% over the first half of last year. Savings banks report a gain in deposits.

More Stockholders on Record

Investors of the United States have been buying new bond and stock issues at the rate of $500,000,000 or more each month. Since the November stock market slump the big corporations have shown increases in shareholders of record ranging from 10% to more than 50%. There are 10,000,000 or more security holders in the country. Most thrifty wage earners are shareholders or bondholders of record.

But for the chemical executive a much more pertinent and personal reassurance comes from a comparison of our heavy chemical market report of ten

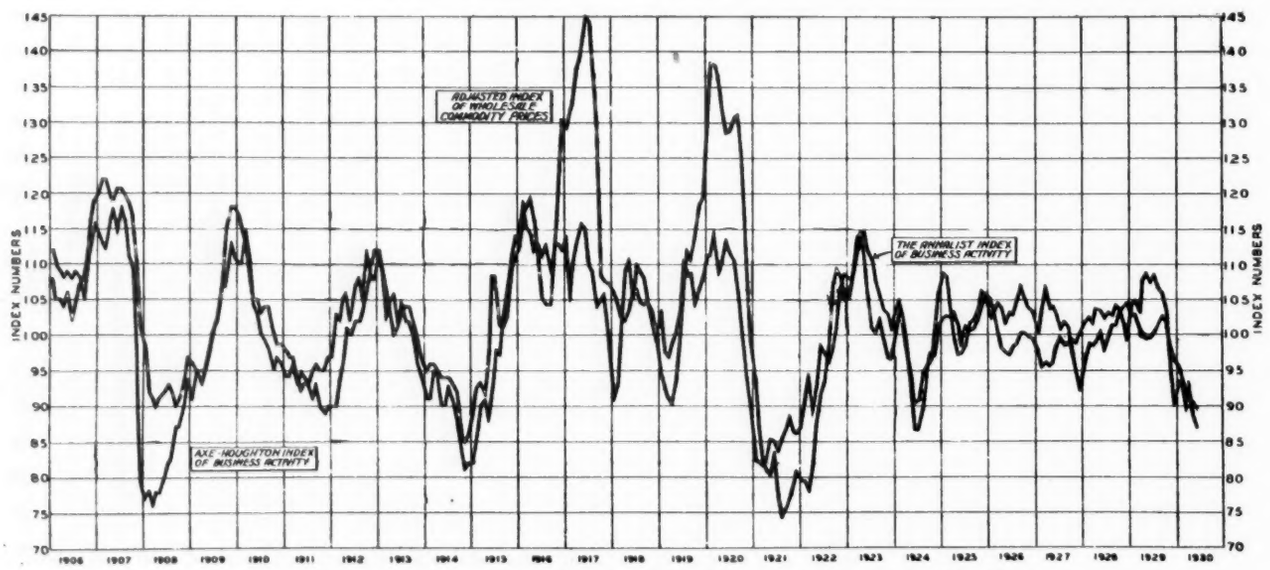


Chart shows general business activity and wholesale commodity prices 1906-1930

ten years

years ago with what is his first hand knowledge of prices and conditions to-day.

New Low Prices

To an extent not generally appreciated without such a comparison, we have already brought the chemical price level down to or below pre-war to that very same level which ten years ago it was commonly said would never be again reached. Roughly forty per cent of our chemicals are now selling as cheaply as in 1914. Two score of very important items are offered to-day (and offered profitably) at prices that are in some instances half of the pre-war quotations. The general average of our whole long list of chemicals is but fractionally higher than before the war, an economic miracle achieved in the face of higher wages and heavier transportation costs, greater capital investments and larger profits to shareholders.

The chemical industry has "done its bit"—to revive a phrase popular ten years ago—on helping to lower the cost of goods to the ultimate consumer. It has often been pointed out that this, after all, is the true function of chemicals in industry.

However, the philosophy of economic service to mankind involved in this altruism, makes very much less impression upon the average chemical company treasurer than the practical realization that in the present down-swing of commodity prices, chemical costs and prices have anticipated that wide movement and accordingly chemical prices will be subjected to far less pressure than those of goods that have lagged behind. The plant executive can preen his feathers a little on the accomplishments of the past decade in reducing costs and he will have the opportunity of setting up still further records of just this sort. Greatest comfort comes to the sales-manager in the sure knowledge he has, that his customers' stocks on hand are not large and that if they are to continue operating they must use chemicals.

Imperial Chemical Industries' stock decline is arrested by statements of Henry Mond and Lord Melchett pointing out there is no basis for Stock Exchange uneasiness due to fact that productive capacity of Billingham nitrogen plant is ahead of sales outlets, since excess has not been standing idle long enough to occasion uneasiness or to belief that last year's profits were realized only by withdrawal of capital from constituent Brunner Mond group, as company is less affected by world depression than most and is extremely strong financially and otherwise.

The Heavy Chemical Market

Current Spot Quotations of Heavy Chemicals, Page 402

HEAVY CHEMICALS IN LIGHT DEMAND

Consumers Buying In Small Lots—Producers Quoting Higher Prices, on a Few Items—Lower Quotations On Glacial Acetic Acid and Yellow Prussiates of Potash and Soda

PRICE CHANGES IN NEW YORK
(Stocks in First Hands)

Advanced
Acid Hydrofluoric, 1c lb. Alum Ammonia, ¼c lb.

Declined
Acid Acetic, 1½c lb. Soda Ash, 15c 100 lbs.
Arsenic White, ½c lb. Sodium Nitrite, 1c lb.
Potash Prussiate, Yellow, 3c lb. Soda Prussiate, Yellow, 1c lb.
Sodium Sulfide, fused, ½c lb.

Trend of the Market

		Today	Last Week	Last Month	Last Year
Acetic Acid, Glacial	lb.	$.12½	$.14	$.14	$.14
Sulfuric Acid, 66 deg.	ton	22.00	22.00	22.00	18.00
Bleaching Powder Works	100 lbs.	6.00	6.00	6.00	2.00
Copper Sulfate	100 lbs.	8.25	8.25	8.25	9.00
Potash, Caustic	lb.	.28	.28	.30	.28
Saltpeter, gran.	lb.	.15	.15	.15	.13¾
Soda Ash, 58 p.c.	100 lbs.	3.10	3.25	3.25	2.00
Caustic Soda, 76 p.c.	100 lbs.	6.00	6.00	6.25	3.30
Potassium Bichromate		.34	.34	.44	.25
Average		**4.994**	**5.113**	**5.198**	**3.900**

Trading in heavy chemicals during the week has been limited with demand light and stocks generally light. Producers continue to quote higher prices on a few items, with stocks in second hands very low. Buying by consumers has continued of a hand to mouth character although some interest has been shown in contracts over 1921 on which producers have been unwilling to quote in many cases. The improvement in the transportation situation has been marked but deliveries continue to be held up to some extent.

Scarcity continues to hold up prices of bleach, sodium cyanide, salt cake and aluminum sulfate in the face of a fairly active demand. Hydrofluoric acid and ammonia alum are higher in producers' hands. Sodium fluoride continues scarce with nominal prices only heard. Lower prices are heard on yellow prussiates of potash and soda, sodium sulfide, glacial acetics and sodium nitrite on the spot. Soda ash is easier on the spot. Caustic soda remains fairly firm with stocks still low. Aluminum chloride is hard to locate in quantity. Arsenic is uncertain with a range of prices still heard.

Acid, Acetic—No change has occurred in the prevailing weakness of this acid. Demand has been very slow with second hand offers of the glacial quality continuing at low figures. Prices on glacial around 12½c@14c per pound are heard with some sales even as low as 12c per pound. The weaker grades are held on the former basis of $8.00@$8.75 per hundred for the 56% strength.

Acid, Hydrofluoric—Producers have increased their prices on this acid 1c per pound for all strengths. The new prices are firmly held with no stocks to speak of in second hands. Quotations are 9c@10c per pound for 30% in barrels, 12c@13c per pound for 48% in carboys and 13c@14c per pound for 52% in carboys.

Acid, Mixed—Prices remain very firm owing to the strength of the sodium nitrate market. Quotations are around 1¼c@1½c per unit of sulfuric and 12c@13c per unit of nitric.

Acid, Muriatic—Quotations have shown no change and this acid seems fairly firm at prevailing figures. The basic price remains at $3.25@$3.50 per hundred for the 20-degree commercial acid and 25c per hundred higher for the iron free grade.

Acid, Sulfuric—No quotable change has occurred in the sulfuric acid situation during the week. Prices have been held steady by producers on the basis of $22.00@$23.00 per ton for 66-degree acid. Some contracts have been put through for this strength as low as $20.00 per ton during the week for deliveries covering the balance of the year.

Alum Ammonia—Producers are quoting slightly higher on ammonia alum on a firm basis. The new prices are 4¾c@5c per pound for lump, 5c@5¼c per pound for ground, and 5¾c@6c per pound for powdered.

Aluminum Chloride—Prices are nominal in the absence of supplies for spot or nearby delivery. Producers report that they will be unable to take on new business for some time to come. Nominal quotations are 5c per pound for liquid and 15c per pound for anhydrous. Some bids in the market have failed to find sellers at any price.

Aluminum Sulfate—Iron free sulfate continues very scarce with only occasional lots to be had at any price. Nominal quotations are given as $6.00@$6.10 per hundred but sales during the week have been made at much higher prices even up to 7c per pound having been done according to rumor. Commercial has been steadier at $5.50@$5.75 per hundred.

Ammonia Water—Prices remain firm at the recently advanced level. The price basis is 7½c@9½c per pound for 20-degree ammonia.

Ammonium Sulfate—Business in fair volume is being done at the former quoted prices of $5.75@$5.85 per hundred for domestic naked or in single bags and $5.90@$6.00 per hundred for export material in double bags.

Arsenic—White arsenic remains in an uncertain but weak position with a variety of prices quoted by different holders. According to holders quotations are heard from 12½c per pound up as high as 15c per pound. There has been little business going on at any price and it is possible that firm business on odd lots could be done at even lower figures. Red arsenic remains at the former level of 20c per pound.

Barium Nitrate—Rumors of higher prices could not be confirmed. A firm market is reported with limited stocks. Quotations are around 12c@13c per pound.

Bleaching Powder—The demand for bleaching powder continues good and prices are firmly held on the former basis of $6.00 per hundred.

Carbon Bisulfide—Prices are firm at 8c@10c per pound with one producer quoting 8½c per pound as his lowest figure. The possibility of higher prices has been expressed quite generally but supplies are still to be had at 8c per pound.

Carbon Tetrachloride—Prices remain on the former basis of 13½c@14½c per pound. The continued strength of bisulfide has aided in holding prices up.

Potash, Caustic—Firm business is being done around 28c@30c per pound for domestic 88-92% material with

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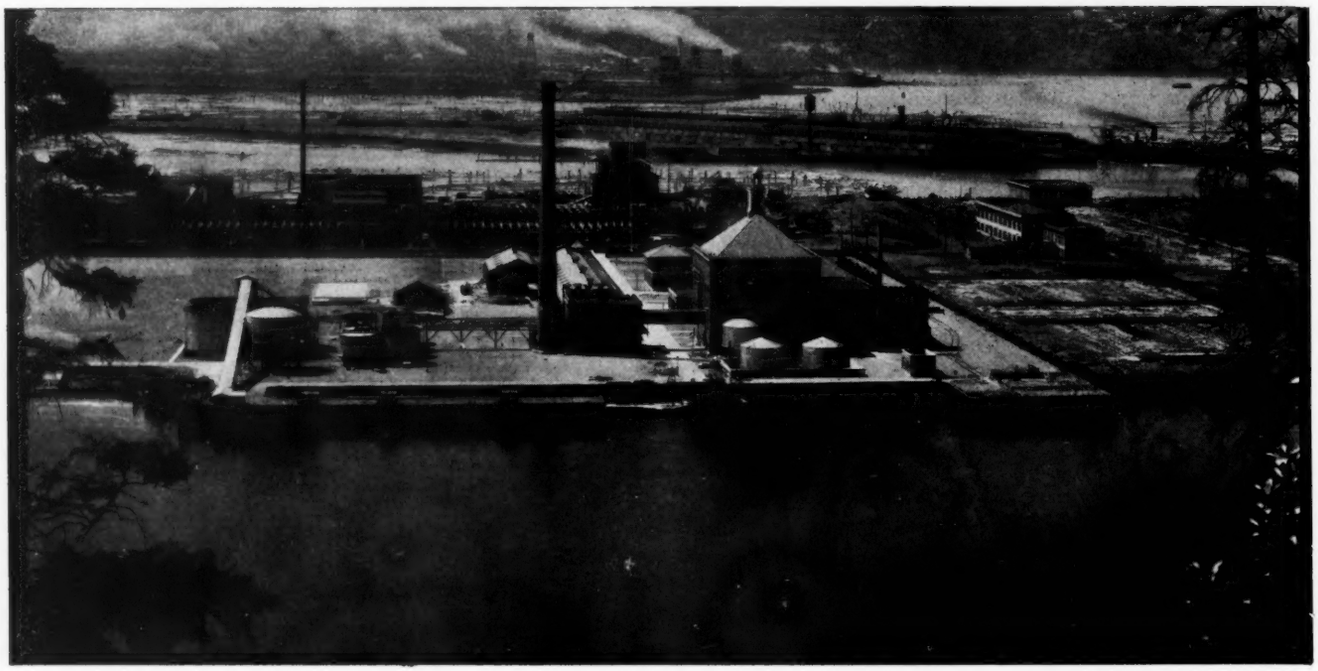

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"We Are Threatened with a Shortage of Crude Sodium Sulfate"*

In a period when prices are generally pointing downward, salt cake, formerly a "poor relation," shows strong bullish tendencies. Here are the reasons therefor and a summary of world marke conditions

By H. O. Moraw

Chemical Division, U. S. Department of Commerce

BY-PRODUCT salt cake from the old hydrochloric-acid process has been largely eliminated by the use of the process of direct synthesis of this acid from chlorine and hydrogen gases. The major portion of the nitric acid is produced by oxidation of ammonia, as well as nitrous oxides for sulfuric-acid plants, so that both the salt-cake and niter-cake supplies as by-products from these processes have been diminished to the extent of the replacement thereof by these new installations.

Niter cake, formerly regarded as a waste product, was valued chiefly because of its sulfuric-acid content, varying from 30 to 35 per cent. Its chief use was as a substitute for that acid for producing salt cake, metal pickling, absorbing ammonia, and acidifying phosphate rock. With the scarcity of salt-cake supplies, niter cake, which has been produced at the rate of 150,000 tons annually, was called into use as a substitute, so that the surpluses heretofore maintained were consumed. Larger quantities were used incidentally in the last few years in ore and metallurgical operations.

The United States requirements of crude sodium sulfate or salt cake, as it is known in the trade, until 1927 were supplied from domestic production, with the exception of 3 to 5 per cent. The imports until 1927 never exceeded 6,300 tons (1926), but rose to over 11,000 tons in 1927, 28,200 in 1928, and 91,100 in 1929.

Use in Kraft Paper Stock

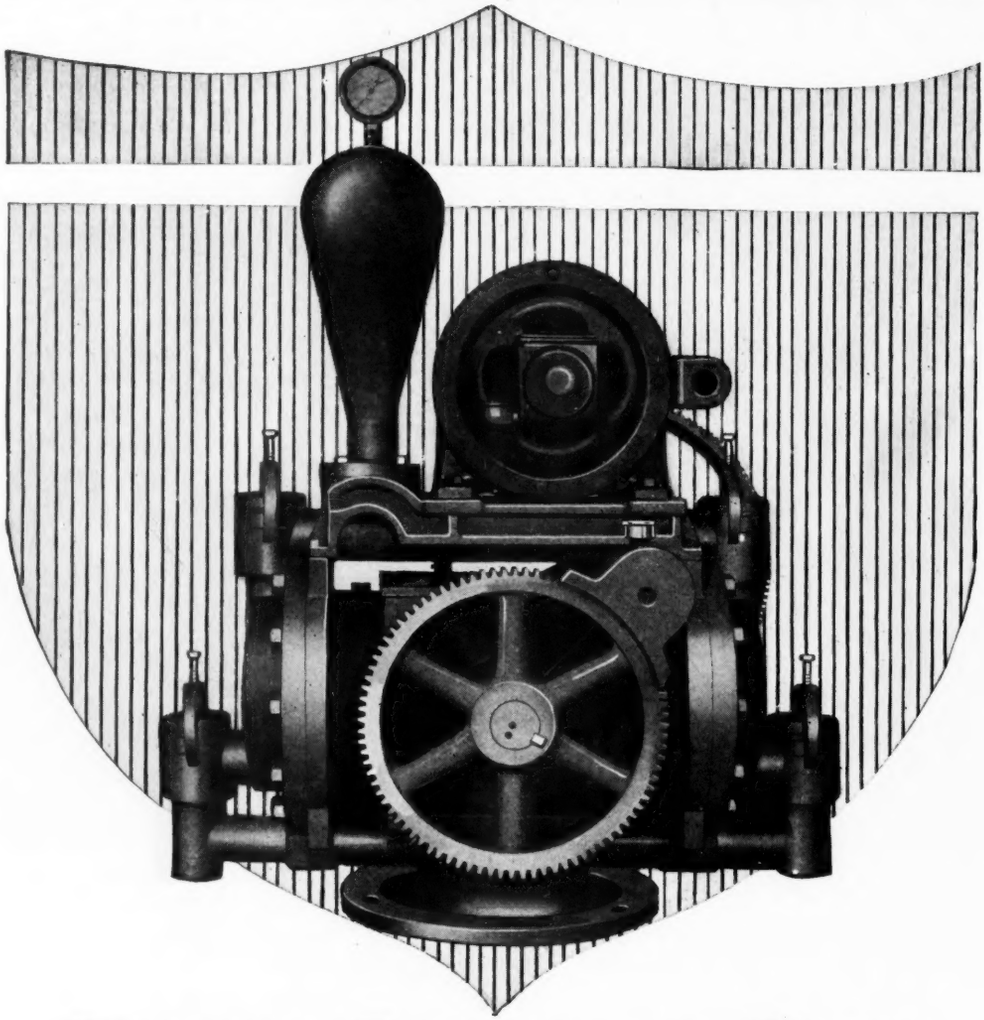
This rapid growth of imports in just a few years was the result of both increased demand and diminished production in the United States. Although this product is one of the basic raw materials for several important industries—the heavy chemical, rayon and textile, glass and ceramics—its largest use is for the manufacture of kraft paper stock. The increased activities in these branches, and particularly in kraft pulp manufacture, in the last two years have added materially to the demand for salt cake. Production of kraft pulp in the United States advanced from 523,900 tons in 1926 to an estimated 1,000,000 in 1929.

Resources Large: Output Limited

Authorities in the United States estimate the recoverable sodium sulfate content of the Great Salt Lake at 30,000,000 tons, and sodium chloride at 400,000,000 tons. Near this lake are also located extensive smelters from which the fumes could be treated to produce large supplies of sulfuric acid. This acid could then be combined with the sodium chloride to supply large quantities of salt cake, if it could be economically transported to consuming centers. Estimates of the tonnage of sodium sulfate in all the important deposits of the United States have not been published but one of the more important, located in Arizona, was estimated by trade authorities to contain about 25,000,000 tons. (Additional technical and geological information is published in Bulletin 717, Sodium Sulfate: Its sources and uses, by Roger C. Wells, United States Geological Survey.)

The small proportion of the total consumption in the United States supplied by the natural product is evidently partly ascribable to such economic factors as the cost of production and transportation to points of consumption. The production of the different forms of sodium sulfate in the United States between 1919 and 1927 is shown in the following table:

**Abstracted from an article in "Commerce Reports."*



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United States Production of Sodium Sulfate

Year	Natural sodium sulfate	Artificial: Salt cake Total	Salt cake For sale	Glauber's salt Total	Glauber's salt For sale	Niter cake Total	Niter cake For sale
	Short tons	Short tons	Short tons	Short tons	Short tons	Short tons	Short tons
1919	....	179,003	122,908	42,206	38,330	97,836	81,170
1921	5,000	131,701	95,995	60,162	52,041	55,578	48,965
1923	10,080	187,064	141,017	72,132	66,192	154,087	129,447
1925	9,940	189,293	140,843	62,731	57,622	124,296	101,596
1927	23,080	208,565	174,992	.....	53,420	153,615	120,506
1929	7,540	.....	.....	.....	.....	.....	.....

The United States increased its imports of salt cake from 11,171 short tons in 1927 to 28,225 in 1928 and 91,144 in 1929. (The 1929 figure includes 634 tons listed in Chile's declared exports to the United States.) The Netherlands was the leading listed source, contributing 50,388 tons in 1929, as compared with 14,576 in 1928 and 2,770 in 1927. Germany followed with 34,772 tons in 1929, against 8,186 in 1928 and 2,790 in 1927. Canada furnished 2,544 tons in 1929; Belgium, 2,021; and Sweden, 1,126.

It is of interest to observe the sources of the United States imports of salt cake in relation to the industrial activity in processes from which it is a by-product in the countries of origin, the presence or absence of sulfate pulp production, and the presence of sources of natural sodium sulfate. In 1927, for example, about 40 per cent of the salt cake imported came from Canada (4,415 tons), probably from supplies of the natural product. The greatly increased contributions of the Netherlands in 1928 and 1929 probably represented transshipments originating in Germany. The Netherlands has no large supplies of by-product salt cake, whereas considerable quantities are available in Germany as a by-product of the potash industry.

Increased Imports

The portion of salt-cake and Glauber's salt supplied by imports was comparatively small until 1923. In 1918, for example, only 69 tons of salt cake were imported; in 1922, 704 tons. Glauber's salt imports are not shown prior to 1921, when the quantity brought in was a little over 3,100 tons. In the following year nearly 6,800 tons were imported. The imports of both of these products showed large increases in 1923 and from then on continued to represent an appreciable proportion of the consumption. Refined sodium sulfate imports advanced from 84 tons in 1923 to nearly 3,800 tons in 1929. Data covering this trade follow:

United States Imports of Sodium Sulfate

	Short tons		Short tons
Salt-cake:			
1923	5,283	1927	11,171
1924	3,427	1928	28,228
1925	1,913	1929	91,144
1926	6,269	*1930	24,494
G'auber's salt:			
1923	9,013	1927	3,145
1924	6,428	1928	1,552
1925	6,682	1929	858
1926	3,530	*1930	315
Refined:			
1923	84	1927	2,877
1924	133	1928	3,578
1925	136	1929	3,792
1926	1,413	*1930	1,566

*three months

*three months

Canadian Resources and Consumption

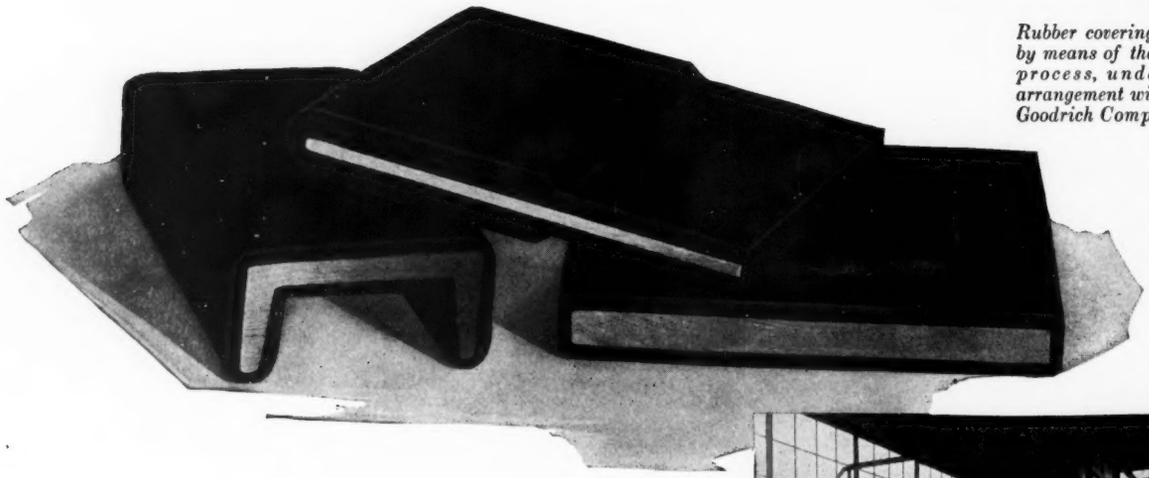
The largest known deposit of sodium sulfate in the world exists at Ingelbright Lake, about 40 miles above Hatton, Canada, according to the Department of Mines of the Dominion Government. Among other more important Canadian deposits are those of Saskatchewan, which, taken together, have been estimated to contain over 100,000,000 tons of hydrated sodium sulfate. The lack of any appreciable production from the Canadian deposits is indicated by the figures in the accompanying table. The imports of salt cake as shown from 1922 to 1929, inclusive, ranged from 31,000 to 42,000 tons, while production did not exceed 9,000 tons in any one year. The constant demand for salt cake and the large increase in consumption of niter cake within the last two years stimulated commercial interests to undertake an expansion of the production of the former from the natural deposits. This development is closely associated with the large demand by nickel interests for niter cake as a fluxing agent in ore smelting. Their large-scale activities have involved a $40,000,000 expansion program over the past four years and call for an additional $10,000,000 expenditure yet to be made on the development of the rich nickel, copper, and rare metal ores in Ontario. The importance of this development as a sodium sulfate consumer is indicated by the fact that Canada supplies 90 to 95 per cent of the world's nickel.

Canadian Production and Imports of Sodium Sulfate

Year	Production: Natural	Artificial: Crude	Artificial: Glauber's salt	Imports: Niter cake	Imports: Salt cake	Imports: Glauber's salt
	Short tons	Short tons	Short tons	Short tons	Short tons	Short tons
1922	504	2,583	1,905	....	39,472	172
1923	733	2,376	2,315	20,152	30,967	521
1924	1,083	1,648	1,458	18,859	36,022	906
1925	3,876	2,248	1,442	21,873	34,215	518
1926	6,775	2,237	1,878	15,948	41,945	733
1927	5,659	....	....	13,143	42,333	288
1928	6,015	....	....	36,561	38,835	356
1929	6,592	....	....	80,872	39,512	362

New Canadian Projects

As a result of the growing requirements for niter cake and salt cake, for the production of sulfate pulp and other chemicals, and as a substitute for soda ash in glass production, the Canadian Horseshoe Lake Mining Co. is expected to have in operation in Ormiston, South Saskatchewan, by the middle of the current year, a plant for the production of at least 36,000 tons of sodium sulfate annually. Canadian Industries (Ltd.), at Copper Cliff, is constructing a plant for the conversion of smelter fumes to sulfuric acid, which



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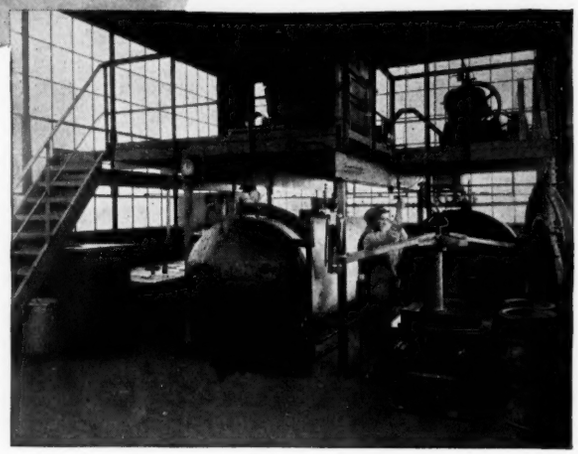

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will have space for four 50-ton-per-day sulfuric acid units and niter-cake production capacity of 200 tons per day, with room for expansion. Ample storage space is provided for sodium sulfate, which is to be obtained from the Horseshoe Mining Co.

Germany Leads Foreign Production

The principal foreign salt-cake producers, with the approximate output in metric tons are Germany, 290,000; the United Kingdom, 150,000; Belgium, 50,000 to 80,000; and France, 135,000. Germany has in the neighborhood of 125,000 to 150,000 metric tons for export; Belgium, around 20,000 tons; France, in 1926, had approximately 32,000 tons, which declined to 6,000 tons in 1929, while Great Britain's export surplus amounted to 87,000 tons in 1928 and increased to 134,000 tons in 1929.

European Salt-Cake Cartel

Since 1925 there has been a German and British agreement to allocate markets for salt cake. British markets were reserved to England; German, Czechoslovak, and Austrian, to Germany; and there was a 40:60 English-German division of all other export markets. Plans for inclusion of other countries having an exportable surplus involved according Belgium 30 per cent of its home market and 20,000 tons for export and France its home marked and 70,000 tons for export. Both Belgium and French export stocks were to be sold by the Sulfate-Vereinigung (German salt-cake cartel) of Frankfort-on-the-Main.

The German resources in this commodity overshadow those of the combined European producers, the major portion of the German product being obtained from waste magnesium sulfate liquors resulting from fertilizer potash production. These liquors, until recent years, were dumped into German rivers, but upon the development of the process of converting the magnesium sulfate to sodium sulfate by appropriate mixing and cooling with sodium chloride, production costs were greatly lowered and a large exportable surplus of salt cake resulted. No detailed information is available regarding muriatic-acid by-product salt-cake production in Germany, but the quantities produced might be roughly estimated from the hydrochloric-acid production total—250,000 to 275,000 metric tons—of which about two-thirds is by the sodium-chloride-sulfuric-acid process.

French Salt-Cake in Home Market

Sodium sulfate in France is made largely to meet the needs of the glass plants and chemical production. The 1929 output is estimated at 135,000 metric tons, compared to 130,000 tons in 1928. The exportable surplus of this product, which France had in 1926, declined markedly—from 32,283 tons to 6,622 in 1929. No sodium sulfate is imported into France.

Practically all of the sodium sulfate in France is a by-product of hydrochloric-acid production, which fluctuates around 110,000 metric tons annually, depending upon the demands of the glass industry for salt-cake. The disposition of niter cake, such as results from French nitric-acid production by the sodium-nitrate-sulfuric-acid process or from the sulfuric-acid industry is not made public. French nitric-acid consumption approximates 25,000 tons a year, and, until 1928, synthetic nitric-acid production was not actively developed in France.

Three Forms Produced in Italy

Sodium sulfate is particularly important to Italy as a base for sodium sulfide, a requisite for sulfur dyes, which make up over two-thirds of the Italian synthetic dye production. Likwise, sodium sulfate is used for viscose rayon production, in which Italy ranks as the second world factor.

According to trade circles, sodium sulfate is produced in three forms in Italy—the anhydrous, crystal, and crystal in needle shape. The first two are used for industrial purposes, such as the manufacture of paper, textiles, and glassware, and by tanneries. The third type, commonly known as "Sale Inglese" or "English Salts", is used for medicinal purposes.

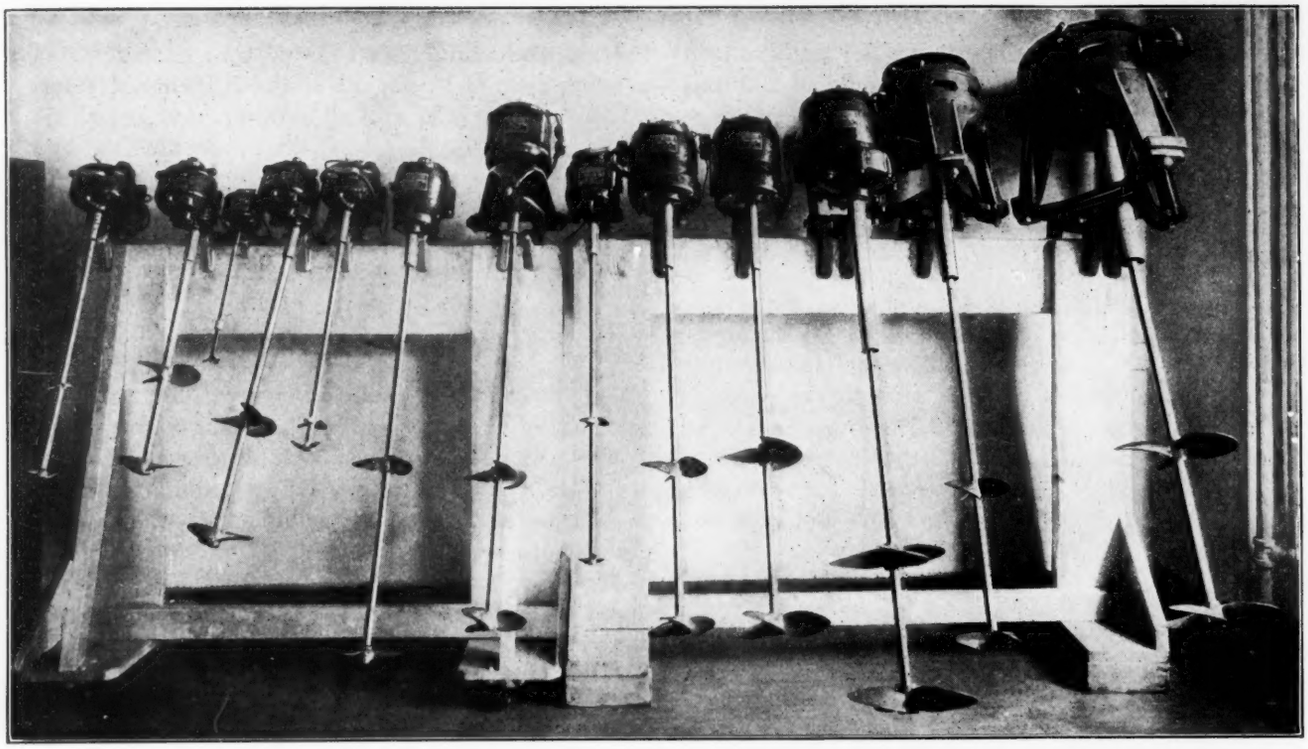
South American Deposits

Production of salt cake in Argentina, by two producers, totals 600 tons annually. Present operations are on a very small scale, in view of the limited demand. So far this product has not been exported. One company owns a small factory for the industrialization of sodium sulfate, which is used chiefly by glass manufacturers, cleaning and dyeing establishments, and laboratories. Production could be increased if contracted for in large quantities. The most important deposits of this product are found in Lake Epecuen, situated in the southwestern part of the Province of Buenos Aires, operated by a firm in Buenos Aires. This lake covers about 32,000 hectares, of which only a small part is exploited during the winter, when sulfate of sodium forms on the surface.

Important Spanish Deposits

Official reports for 1928 indicate the existence in Spain of 23 sulfate of soda concessions, covering an aggregate of 1,134 hectares (2.47 acres), but no estimate has been made of the number of tons available in these areas. Of these concessions, 18, covering 1,121 hectares, are located in the Province of Burgos and 5, covering 12 hectares, in the Province of Zaragoza. The concessions worked during 1928 produced 7,410 metric tons. There is but one factory, which during 1928 produced 6,648 metric tons. This plant is undergoing improvements. The product must be carried by aerial cable and railway to the plant.

In the Province of Madrid there is a deposit of sulfate of soda, considered one of the most important of Europe, due to its content, location, and convenience of exploitation.



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Chemical Facts and Figures

Chilean Nitrate Combine Complete

Chilean government formally announces formation of Chile Nitrate Co. (Compania de Salitre de Chile) consolidating entire nitrate interests of Chile under special Congressional enactment. Company, 50 per cent government-owned, will control Guggenheim process for nitrate extraction from ore, using method exclusively. Guggenheim Brothers, owning process and controlling about 35 per cent of industry through Anglo Chilean Consolidated Nitrate Corp., are government's most important partner in enterprise. Government eliminates export tax on nitrate and iodine, amounting to about $30,000,000 yearly and in return receives one-half company's stock and guaranteed minimum returns of $22,500,000 for 1931, $20,000,000 for 1932 and $17,000,000 for 1933, after which it will rely on dividends from its stock and 6 per cent income tax. Government shares cannot be sold or pledged. Guggenheim process, used at Maria Elena plant of Anglo Chilean Co., treats ore containing 8 per cent nitrate at unit production cost of 40 per cent less than attained by Shanks process treating ore of 15 to 16 per cent nitrate content.

Oil Men Study Hydrogenation

Oil executives spend a month in Germany studying hydrogenation work of I. G. Farbenindustrie. Group comprises representatives of companies having 80 per cent of refining capacity of country, associated as Hydro Patents Co., which will control new process by shares in proportion to their crude oil running capacities, and paying fixed and running royalty to I. G. and Standard of N. J.

Employment and payroll totals for June in chemical industry show decrease from May, 1930 and June, 1929. In allied lines, fertilizers show same downward tendency as in chemical field but petroleum refiners while showing lower employment figures for May and June of this year report a slight increase in payroll totals over corresponding months a year ago.

Chemicals and allied products	94.4	93.0	89.8	99.9	97.0	95.5
Chemicals	101.3	94.0	93.1	105.8	96.0	94.9
Fertilizers	63.6	84.9	62.8	73.6	88.6	70.7
Petroleum refining	96.4	94.5	94.4	98.9	99.3	100.3

Fertilizer Sales, Ltd., London, ceases trading June 30 and operations are taken over by newly formed European Cyanamide Export Co., Ltd., whose executives are: R. C Bartlett, director; H. Gilchrist, managing director; J. A. Terrace, director and secretary; E. E. Cossey, director commercial department.

Italian acetic acid production, first nine months of 1929, was 1,583 metric tons, compared with 1,344 first nine months of 1928. Consumption was 1,485 tons same period 1929; 1,371 tons, 1928.

Shawinigan Chemicals, Ltd., make arrangements with Sharples Solvent Corp. to import pentasol—synthetic amyl alcohol— and manufacture it into pentasol acetate. They become Canadian agents for Sharples.

Japanese Chemical Industries Association organizes third Chemical Industries Exhibition, to be held in Tokio from March 20 to May 18, 1931. Closing date for receipt of application for space is Dec. 31.

United States Glue to Canada

The United States is second largest supplier to Canada of animal glue, in powdered or sheet form, and is of first rank importance as a source of supply for Canadian requirements of liquid glue, as may be observed from the following table:

IMPORTS OF GLUE INTO CANADA, 1929

	Animal Glue Powdered or Sheet		*Liquid Glue*
Country of Origin	*Pounds*	*Value*	*Value*
United Kingdom	2,126,674	$250,521	$10,224
United States	537,190	66,336	60,340
Belgium	182,785	16,739	.....
Czechoslovakia	165,610	14,758	.....
Germany	115,850	13,194	923
Other	75,518	9,888	642
Total	3,201,625	$371,436	$72,129

American Bureau of Metal Statistics estimates use in 1929 of principal non-ferrous metals in automobile industry, especially in automobile manufacture, at 35,000 short tons copper, 40,000 tons zinc, 19,000 tons tin, 18,000 tons lead and 38,000 tons aluminum, total of 250,000 short tons. This compares with 125,000 tons of copper used in 1928, 31,500 tons of zinc, 20,000 tons tin, 17,000 tons lead and 34,000 tons aluminum, total in 1928 of 227,500 short tons.

U. S. Tariff Commission issues comparison of new tariffs with those of 1922 act. Publication gives paragraph numbers of the two acts, computed duties based on 1928 imports and rates of duties of the two acts, all in convenient form. Book costs 75 cents from Superintendent of Documents, Government Printing Office, Washington, D. C.

June coke production totals 4,215,446 gross tons, against 4,506,628 tons in May and 5,111,964 tons in June, 1929, according to figures compiled to-day by Bureau of Mines. Included in month's output were 3,953,846 tons of by-product coke, against 4,265,528 tons in May and 261,600 tons of beehive coke, against 241,100 tons.

Coming Events

American Society of Mechanical Engineers, Poinsett Hotel, Greenville, S. C., October 22nd.

American Chemical Society, 80th meeting, Hotel Gibson, Cincinnati, O , September 9th to 12th.

Association for the Advancement of Science, Cleveland, O., Dec. 29th.

American Society for Steel Treating, Chicago, Sept. 22 to 27th.

National Paint & Varnish Association and American Paint & Varnish Manufacturers' Association. Royal York Hotel, Toronto, week of October 13th.

Machine Age Exhibit, Museum of the Peaceful Arts, 220 E. 42 St., N. Y. C., Aug. 1-31.

National Association of Retail Druggists, Atlantic City, N. J., Sept. 15th.

SELL by SMELL the NEW SALES PSYCHOLOGY

Bad odors handicap sales

Artificial leather and all other pyroxylin coated fabrics can be readily reodorized.

To-day the demand is becoming greater and greater for pleasantly smelling merchandise.

We have developed aromatic materials especially for this purpose. A minute fraction of one percent is sufficient to give an agreeable odor.

Permit us to show you how to give odor appeal to your product.

Largest manufacturers of aromatic products in America

TRADE GIVAUDAN AROMATIC PRODUCTS DELAWANNA M

Givaudan-Delawanna, Inc.

80 FIFTH AVENUE NEW YORK

Anhydride Patent Decision Affirmed

Barrett Co. decree in suit against Selden Co. for infringement of patent on a converter for phthalic anhydride is upheld as valid in United States Circuit Court of Appeals, Philadelphia, confirming earlier finding of Western District Court of Pennsylvania and sustaining Barrett in its complaint of infringement of their Downs patent by a converter used by Selden. The appellate court expressed the opinion that while the converter in question was founded on no startling discovery in chemistry, it did vastly increase the ability to manufacture phthalic anhydride and that, prior to Downs, the defendant used a converter by which it produced 70 to 75 pounds of phthalic acid per day from each converter, but upon becoming acquainted with Downs' form, it replaced its converter form and was able to produce from 750 to 850 pounds of greatly improved quality.

Industrial Rayon Corp. holds mid-year sales conference at Cleveland, addressed by H. S. Rivitz, president; A. A. Murphy, sales manager; Hayden B. Kline, technical director and George Brooks, service manager.

Draper, Davis & Co., Milford, Del., fertilizers, sell plant to George A. Whiting, Baltimore, said to be bought for Valiant Fertilizer Co., owning other plants on peninsula.

Algerian phosphate deposits at Djebel-Onk may soon be exploited opening up reserves of about 300,000 tons hitherto held because of doubtful quality.

International Nickel Mines extend research into refining and sale of platinum and other precious metals.

Hungaria Chemical and Fertilizer Co. works, Budapest, largest in Hungary, are destroyed by fire.

And Now, the Tree Sitter Assistant

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Huisking Joins Matawan Tar Products

George P. Huisking, secretary, Charles L. Huisking & Co. resigns to join Matawan Coal Tar Products Co., Matawan, N. J., as vice-president and sales manager, fulfilling ambition of many years' standing to become identified with coaltar manufacturing plant. Other officers of the company are: president and treasurer, David Wiener; secretary, A. Wiener. The company's products will be distributed through the sales organization of Innis Speiden & Co., which is also interested in Matawan company financially. Products include cresylic acid, cresol, naphthalene, creosote oils, coaltar solvents. Mr. Huisking's headquarters will be at Innis, Speiden main office, New York.

George P. Huisking

Hickson and Partners, Castleford, near Leeds, England, manufacturers of dyestuffs and intermediates, suffers much damage, including loss of thirteen workers, from fire and explosion in acid-mixing plant. Modern safety design saves benzol plant and storage near site of explosion from destruction.

Gypsum, Lime & Alabastine, Canada, Ltd., acquires Crystalite Stone Products, Ltd., Hamilton, Ont., operating it as division of Gypsum under name of Crystalite Products, Ltd.

William Hirschkind, head, Great Western Electro Chemical Co. research laboratory, is elected vice-president in charge of research and development.

Lens Coal Mines in France progress in plans to erect cyanamid factory with annual output of about 40,000 tons, planned to use surplus electrical power.

Calco Chemical and Heller & Merz combine Boston offices, leasing entire building at 35 Hartford st., each continuing as separate corporation.

E. J. Carroll, formerly with Hampden Paint & Chemical Co., becomes superintendent Hastings Paint & Varnish Co., West Springfield, Mass.

Linde Air Products Co. publishes new pamphlets, "Outline Training Course for Aircraft Welders" and "Production Welding".

W. B. Montgomery, Colorado Fuel and Iron Co., is appointed controller succeeding H. L. Butt now assistant to president.

P. J. Gibbons, formerly assistant secretary and treasurer, Vanadium Corp., is appointed secretary and treasurer.

Chester Laboratories, Inc., Elizabeth, chemical manufacturer, go into hands of receiver, Milton M. Unger.

Andrew H. Schmidt, treasurer and general manager, F. O. Pierce Co., becomes president.

William Wachendorf, formerly sales manager, H. J. Jackson, New York, joins Charles L. Read & Co.

International Combustion Engineering Corp. considers reorganization plans.

Du Pont adds to line new cold dyeing vat color Ponsol Violet AR Paste.

Light 58% Soda Ash Shipped in 100 lb. Paper Bags

WYANDOTTE Soda Ash is now packed in multi-wall paper bags. Multiple layers of special paper end the old dust nuisance---no meshes to let the dust seep through. The smooth paper lining lets the entire contents slide right out.

The new size makes handling easier, quicker, less expensive. You save time, labor. Guaranteed dust-proof, leak-proof, break-proof, moisture-proof.

Michigan Alkali Company is the first Soda Ash manufacturer to successfully use this method of packing Soda Ash.

"Distinguished for its high test and uniform quality"

MICHIGAN ALKALI COMPANY

General Sales Department

10 East 40th Street, New York City

CHICAGO OFFICE: 1316 SOUTH CANAL STREET

WORKS: WYANDOTTE, MICHIGAN

NOTE NEW ADDRESS : Our new location in New York is at 10 East 40th Street—just across the street from where we were and a few steps nearer Fifth Avenue

New Plant Construction

American Solvents & Chemicals Co. plans expansion of recently acquired Rossville Distillery and Greendale Co. by about one-third. Carthage plant becomes permanent producer, ethyl alcohol and butyl, Lawrenceburg plant is to produce ethyl alcohol and by-products, and Agnew plant, California to produce ethyl alcohol, carbon dioxide and by-products.

Hercules Powder Co., rearrange Carthage, Mo., plant at estimated cost of $175,000. Installation of equipment is being carried out by Hercules employees under direction of J. S. Marks, superintendent at Carthage and Construction Engineer R. K. Hallett of Wilmington.

Cosano, new Chilean nitrate combine, plans construction of two new plants, each with capacity of 700,000 tons annually, to replace plants compelled to work under difficult conditions. Organizations are formed to regulate sale of Chilean nitrate in Spain and France.

Spirintine Chemical Co., producers of pine oil, completes new unit at Wilmington, N. C. With addition approximate annual output will be 350,000 gallons of pure pine oil. Louis Hanson, Jr., son of founder of Company is now president and general manager.

American Solvents & Chemical Co. principal plants, situated at Lawrenceburg, Ind., will be expanded about one-third, producing ethyl alcohol and by-products, Carthage plant will be used for production of ethyl alcohol and butyl.

Monsanto Chemical Co. announces completion of new plant for production of sodium benzoate and benzoic acid by entirely new method.

Globe Petroleum Co. constructs plant for production of solid carbon doixide near Tampico, Mexico, with capacity of about twenty tons daily.

Gulf Refining Co., subsidiary of Gulf Oil Corp., prepares to begin work on installation of $60,000 distribution station in Pulaski, Va.

Shell Chemical Co. new nitrogen fixation plant in Contra Costa County, Cal., will have daily capacity of 60 metric tons fixed nitrogen. Hydrogen will be obtained from natural gas.

Peroxide Mfg. & Specialty Co., San Francisco, plans early rebuilding of part of plant recently destroyed by fire with loss of more than $75,000.

Tubize-Chatillon Corp. installs new machinery in sections of Hopewell, Va., plant.

Solvay Process Co. starts work on $5,000,000 plant expansion program at Syracuse August 1.

Prest-O-Lite Co., Inc., puts in operation new plant for manufacture and distribution of dissolved acetylene at Casper, Wyo.

Hoffman-La Roche, Inc., Nutley, N. J., manufacturer of chemical products, plans addition to plant to cost over $100,000.

Mathieson Alkali Works, Inc., Niagara Falls, plans early construction of one-story laboratory unit to cost about $70,000.

Prest-O-Lite Company, Inc., opens new plant for manufacture and distribution of dissolved acetylene at Casper, Wyo.

Montecatini interests announce through subsidiary, Italian Rhodiaseta, opening of acetate rayon plant at Palanza. Plans call for initial production of 3,000 kilos daily.

Sharpe & Dohme, Inc., Philadelphia, manufacturer of chemical specialties, drugs, etc., plans five-story factory addition to plant, to cost over $200,000 including equipment.

Stauffer Chemical Co., San Francisco, manufacturer of chemical products, potash and sulfur specialties, approves plans for two-story addition to cost about $40,000.

National Oil Products Co., Harrison, N. J. manufacturing oil products based on cod-liver oil, plans four-story expansion costing about $200,000.

Hercules Powder Co. will erect nine one-story buildings to replace several units at Carthage, Mo., at cost of more than $160,000.

Penick & Ford, Ltd., Cedar Rapids, Iowa, constructs two-and three-story addition to starch-manufacturing plant, to cost about $100,000.

Commercial Pigments Corp., subsidiary of Commercial Solvents, plans increasing plant capacity to 20 tons titanium, additions to cost $200,000.

Consolidated Feldspar Corp., Rochester, N. Y., erects one-story brick and steel addition to plant.

Philadelphia Quartz Co., plans to construct addition to subsidiary plant at Berkeley, Cal., costing about $80,000.

Bakelite Corp. asks bids on construction of new plant at Bound Brook, N. J., to cost about $1,000,000.

New Freight Rates

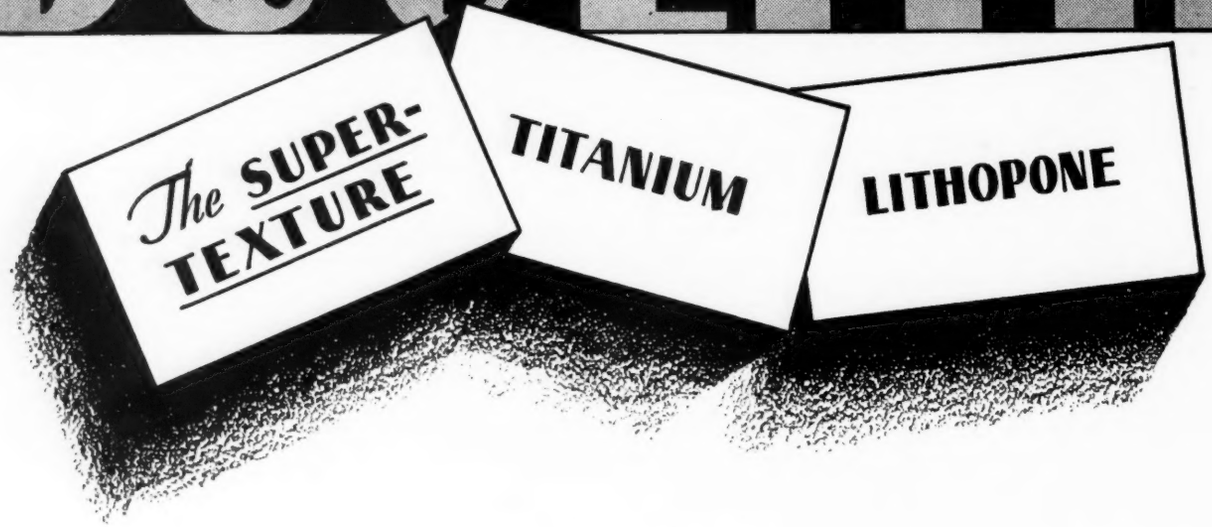
Reduced freight rate of 2½ cents per hundredweight on salt is approved by Public Service Commission on N. Y. Central lines, applying on carloads (minimum weight, 45,000 pounds) from Gouverneur, on traffic from salt producing plants to Hailesboro.

New rate of 32 cents on barrels, carloads (minimum 40,000 pounds) freight on glycerine other than crude, is approved from Long Island City (Pidgeon st.) New York (including lighterage) Kingsbridge, Morris Heights, High Bridge, Melrose Junction, Westchester ave., and Port Morris to stations East Buffalo to Harriet.

Gypsum rock carload freight rate of $2.80 net ton, Victor to Binnewater, are approved by New York State Public Service Commission for Lehigh Valley Railroad.

Ammonia sulfate freight rate of 21½ cents per hundredweight in carloads (minimum weight, 40,000 pounds) from Utica to D. & H. Stations, Fort Edward, Gansevoort, Glen Falls, Hudson Falls, and Saratoga Springs, is effective July 20. Commodity rates are substituted for class rates on saltpeter on carloads (minimum weight, 40,000 pounds) from Long Island City (Pidgeon st.), New York, (including lighterage), Kings Bridge, Morris Heights, High Bridge, Melrose Junction, Westchester ave., and Port Morris to numerous stations on New York Central and West Shore lines, effective July 22. Public Service Commission approves new freight rates of New York Central (East) on ammonia (sulphate of), carload, minimum weight 40,000 pounds, to Keekskill from Troy 12.5c, reduction 2c, and from Utica 16.5c, reduction 2.5c per cwt. Effective July 27.

DUOLITH



DUOLITH is the best high opacity pigment for all types of enamels.

Its super-fine soft texture makes enamel grinding easy. Even minimum grinding yields enamels free from sandy particles. Better still, the enamels hold their gloss and color and show no hard settling in the can.

The very low oil absorption grade of DUOLITH assists greatly in obtaining enamels with good flow and leveling.

DUOLITH enamels dry readily and do not show that wavy surface after brushing which detracts so much from the appearance of many gloss paints.

The unusual properties of this unique pigment warrant your investigation in all enamel formulas.

FOUNDED 1839
GRASSELLI
REG. U.S. PAT. OFF.

THE GRASSELLI CHEMICAL CO.
INCORPORATED **CLEVELAND**

New York Office and Export Office: 347 Madison Ave.

Branches and Warehouses:

ALBANY	CHARLOTTE	MILWAUKEE	PATERSON
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BROOKLYN	DETROIT	NEW ORLEANS	ST. LOUIS
			ST. PAUL

LOS ANGELES: 2034 Bay St. SAN FRANCISCO: 274 Brannon St.

GRASSELLI GRADE
A Standard Held High for 91 Years

Personal and Personnel

Charles B. Spicer, resident manager of St. Louis office of Hercules Powder Company retires after 43 years of continuous service in explosives business. He was born in St. Louis in 1869, and received his education there. He entered the explosives business in 1887 as office boy for Hazard Powder Co., subsequently rising to the position of salesman. He later became an explosives sales agent at Pittsburg, Kansas, and in 1913 he became manager of Pittsburg office, Hercules Powder Company. He occupied this position until 1921 when he was transferred to his home town as resident manager in charge of Southwestern district.

William Thornton Read, formerly head of chemistry department, Texas Technological College, is appointed dean of newly organized School of Chemistry, Rutgers University. During seven years on faculty of Yale, Dr. Read attracted attention of chemical industry by taking his students to New York several times for entire week of National Exposition of Chemical Industries. He became member of advisory board of exposition and has been chairman of its students' course since 1923. He went to Texas Technological as a member of its first faculty in 1925.

Among two hundred American business leaders organized recently to further scientific study of business under auspices of Harvard Business School, are Sewell L. Avery, United States Gypsum Co., Stephen Birch, Kennecott Copper Corp., Albert Blum, United Piece Dye Works, A. V. Davis, Aluminum Co. of America, George Eastman, Eastman Kodak Co., Amory Houghton, Corning Glass Works, H. B. Rust, Koppers Co., Arthur W. Sewall, General Asphalt Co., Chester O. Swain, Standard Oil of New Jersey, Theodore Swann, Swann Chemical Co.

Lord Melchett presides over meeting of European synthetic nitrogen manufacturers. Dr. Bosch, of I. G. Farbenindustrie is among those present. Agreement is reached as to necessity of British and German producers working in closer collaboration, it is said.

Dr. J. R. Neller, associate chemist, Washington State Experiment Station, is appointed associate biochemist at Florida Everglades Experiment Station. He has done considerable commercial research and is member of American Chemical Society.

T. Wayne Gibson, formerly with Pure Carbonic Co., Berkeley, Cal., is named vice-president, Pure Carbonic, Inc., New York, with general supervision of Pacific Coast plants. Hall Byther takes charge of Berkeley plant.

J. A. Berninghaus, general manager of sales, and V. E. Williams in charge Eastern sales office, Monsanto Chemical Works, are elected assistant vice-presidents, continuing in their respective positions.

Andrew Henry Schmidt is elected president, F. O. Pierce Co., manufacturer paints and varnishes. Ernest J. Lyons is made director and vice-president, and Daniel Ryan is made director.

Charles D. Robb, partner in firm of C. W. Leavitt & Co., New York, becomes associated with C. Tennant Sons & Co., New York, importers and exporters of ores, metals and alloys.

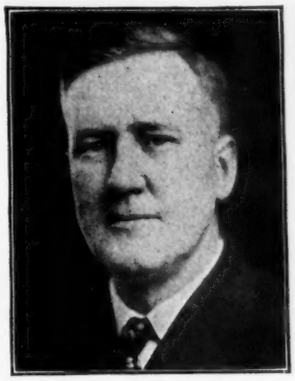
James R. Rossman, president, Berkshire Chemical Co., Bridgeport, Conn., fertilizer manufacturer, visits New York week of July 14.

Robert J. Keller, president, Geigy Co., Inc., resigns after twenty-seven years as president of company and its predecessors.

George P. Vincent, formerly with Eastman Kodak Co., joins Mathieson Alkali Works, Niagara, Falls.

Dr. Nickell With London Monsanto

Dr. L. F. Nickell, assistant vice-president, Monsanto Chemical Works, is appointed chairman of board, Graesser-Monsanto Chemical Works, British branch of St. Louis Monsanto, succeeding late John D. Gillis as London managing director. He was born in Padua, Ill., Feb. 6, 1884. He received degrees of bachelor, master and doctor of philosophy at University of Illinois. From 1913 to 1917 he was assistant professor of chemistry at Washington University. He joined Monsanto staff in 1917 and has been in charge of operations at Monsanto, Ill., plant of company for past ten years.



Dr. L. F. Nickell

Mackenzie Heads Testing Society

American Society for Testing Materials elects following officers: president, K. G. Mackenzie, Texas Co., New York; vice-president, Cloyd M. Chapman, consulting engineer, New York; members, executive committee, F. H. Jackson, United States Bureau of Public Roads, Washington; Zay Jeffries, Aluminum Co. of America, Cleveland; H. H. Quimby, consulting bridge engineer, Philadelphia; G. A. Reinhardt, Youngstown Sheet & Tube Co., Youngstown, O.; H. N. Van Deusen, Bell Telephone Laboratories, New York. The headquarters executives are: secretary-treasurer, C. L. Warwick; assistant treasurer, J. K. Rittenhouse; assistant secretary, R. E. Hess.

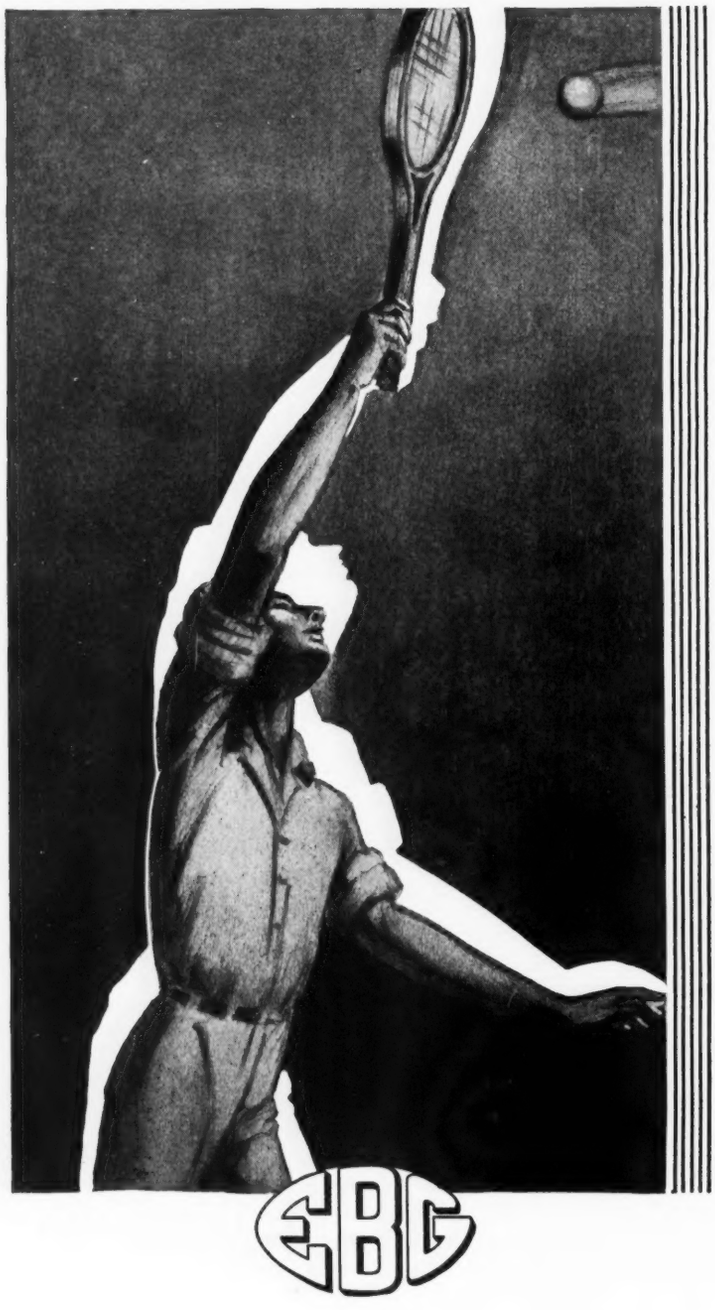
Kenneth G. Mackenzie

Kenneth G. Mackenzie is consulting engineer, Texas Co. He was born in New York, Feb. 4, 1887, and attended Staples High School, Westport, Conn. He received bachelor of philosophy degree from Sheffield Scientific School, Yale, in 1907 and master of science degree from Yale in 1909. In 1908 he became research chemist for Barber Asphalt Co.; in 1910, chemist for Nairn Linoleum Co. He has been consulting chemist with Texas Co. since 1911. He is member of Yale Club of New York and of Chemists' Club, of which he has been president. He is chairman, American Petroleum Institute's division of refining committee on specifications and tests, a member of Franklin Institute's committee on science and the arts, a former member executive committee, American section of Society of Chemical Industry and of the Council of the American Chemical Society. He is a fellow, Chemical Society of London and of American Association for Advancement of Science, and member of other science and chemical organizations.

Lammot du Pont, president, E. I. du Pont de Nemours & Co., E. F. Fitch, president, Marion County Lime Co., Jacksonville Fla., and Theodore Swann, president, Swann Chemical Co., are appointed members of directing committee, department of manufacturing activities, Chamber of Commerce of the United States.

J. Vaughan Russell, for past three years secretary of Charles Tennant & Co., Ltd., chemical manufacturers and merchants of Glasgow, is appointed a director.

THE *EXTRA* ADVANTAGE



IT often happens that the product which stands head and shoulders above competing articles benefits from an advantage in purchasing basic materials.

E B G Liquid Chlorine offers this extra advantage.

Fundamentally, the excellence of the product is the cornerstone of the fine reputation established by E B G. It is quality substantially backed by ample production facilities and close technical control.

But the nature of E B G service gives this Liquid Chlorine extra character. Unremitting attention to your requirements, the practice of true cooperation, and high business ideals contribute immeasurably to your satisfaction.

Electro Bleaching Gas Co.
Pioneer Manufacturers of Liquid Chlorine
Plant: Niagara Falls, New York
Main Office: 9 East 41st Street, New York

Liquid Chlorine

News of the Companies

American Smelting and Refining Co., acquires a substantial interest in Mining Trust, Ltd., and provided additional capital for further development and equipment of Mount Isa property in Australia on an extensive scale and for construction of Mining Trust's silver-lead bullion factory. American Smelting agrees also to place at disposal of Mining Trust for a minimum period of ten years the experience, assistance and advice of technical departments.

International Filter Co. and associated companies, International Water Softener Co. and General Zeolite Co. remove general offices and engineering departments from Plant No. 1 to Buckingham Building, 59 E. Van Buren St., Chicago, Ill.

National Cottonseed Products' Association elects following officers: Earl S. Haines, executive secretary; George H. Bennett, treasurer; Christie Benet, general counsel; and A. L. Ward, educational director.

Texas Gulf Sulphur Co. properties at Boling Dome, Texas, are evaluated at $32,000,000 by board of equalization, company's rendering being $11,000,000. It is expected commissioners' report will be protested.

Colgate-Palmolive-Peet Co., replying to complaint of Federal Trade Commission denies it has used unfair methods of competition in using "Naptha" to designate certain soap powder and bar soap.

Royal Piece Dye Works, Paterson, N. J., is sued by Max Imhoff and Olav Berg, dyers, for $150,000, alleging sum is due as royalty on use of a silk-weighting machine they invented.

General Asphalt Co. files suit in Bristish courts against Royal Dutch Shell Combine over agreement Asphalt company claims was made for development of Venzuela oil concession.

Continental Oil Co. and Dryce Corp. enter agreement whereby Continental takes oil and Dryce gas of carbon dioxide outpour from Continental wells, Walsen, Colo.

Newport Chemical Works offer new colors—anthrene black RP paste fine, anthrene navy blue double paste fine, and Newport direct gray B.

Proctor & Gamble negotiates for purchase of Cadum Soap Co., French manufacturers, according to report.

Ralph Smith & Sons find large deposits of bensonite on their land at Forsyth, Mont.

Anroxylin Chemical Corp. purchases plant of Raritan Rubber Co., New Brunswick, N. J.

Solvay Sales Corporation New York office moves to 61 Broadway.

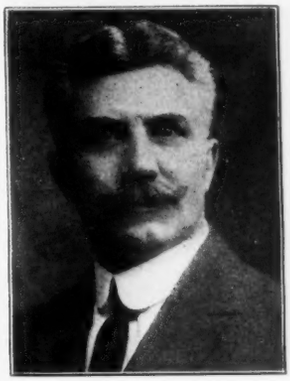
United Molasses, Ltd., acquires substantial interest in Solvent Products, Ltd., British manufacturer of industrial alcohol.

Plant of Seabury & Johnson, East Orange, N. J., manufacturer of plasters and surgical dressings, is damaged by fire.

Nichols Copper Co., issues booklet on use of copper sulfate in control of microscopic organisms, by Frank E. Hale, Ph. D.

Ludwig Elected National Aniline Head

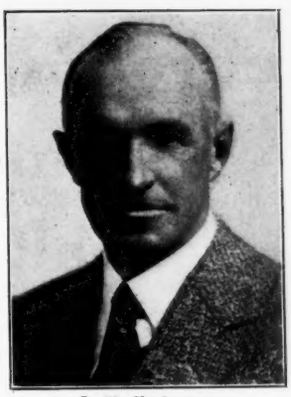
Berthold A. Ludwig, assistant to the president, Allied Dye & Chemical Co., Inc., is elected president, National Aniline & Chemical Co., Inc. He received his early education in Germany, and, coming to this country, entered dye application laboratory of Schoellkopf, Hartford & Hanna, Buffalo. Later he was connected with Wm. J. Matheson & Co., Ltd., and with Cassella Color Co. as technical director for ten years. He became vice-president in charge of sales of National Aniline & Chemical Co., Inc. in 1918, holding position until elected vice-president of General Dyestuff Corp. in 1925. In this position he supervised technical application of dyes until early part of this year, when he resigned and was elected assistant to president, Allied Dye.



Berthold A. Ludwig

It took three over par for R. A. Brewer, Liberty By-Products Co., Belleville, N. J., to win Chemical Salesmen's Golf Tournament July 22 at Fox Hills Golf Club, Rosebank, S. I. Others with low scores were G. A. Beauchamp, Merck & Co., 83; R. M. Banks, American Cyanamid Co., 87; Victor E. Williams of Monsanto, 91; Burton T. Bush, Newport 88; Low nets went to Harold Tegge, G. G. Tegge & Sons; and Wayne E. Dorland, MacNair-Dorland Co. F. S. Dubbs took first in the kickers' division; Oscar Lind, Dow Chemical and A. G. Brunnier followed with net 71 and 73.

Fetherston Becomes Selden President



J. T. Fetherston

J. M. Selden, founder and president, Selden Co., Pittsburgh chemical manufacturer resigns from company on account of ill health.

J. T. Fetherston becomes president. He has been associated with American Cyanamid Co., parent of Selden, in building of Muscle Shoals nitrate plant and other activities.

An engineer, Mr. Fetherston was formerly head of New York city department of street cleaning under Mayor Mitchel.

Erle V. Daveler, treasurer, Utah Copper Co., and vice-president and treasurer, Nevada Consolidated Copper Co., becomes assistant general manager, Utah Copper, succeeding D. D. Moffat, promoted to vice president and general manager.

T. L. Hines, manager du Pont plant at Old Hickory, Tenn., becomes general manager du Pont Cellophane department, New York, being succeeded by Arlington Kunsman, assistant plant manager.

Thornton Emmons, assistant manager of sales, American Zinc, Lead & Smelting, becomes vice president in charge of sales, continuing at Columbus, Ohio, office.

William G. McCourt, Anglo-Chilean Nitrate Sales Corp., marries Miss Catherine Peters July 1.

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MUTUAL
NEW YORK, N.Y.
REG. U.S. PAT. OFF.

Bichromate of Soda
Bichromate of Potash
Chromic Acid
Oxalic Acid

"Mutualize Your Chrome Department"

MUTUAL CHEMICAL CO. OF AMERICA
270 Madison Avenue
New York, N. Y.

Zinc Institute Appoints Committees

American Zinc Institute appoints following committees for current year: Executive, R. M. Roosevelt, chairman; A. P. Cobb, John M. McCarthy, John A. Robinson and B. N. Zimmer; alternates, Frank Childress and Howard I. Young. Membership—Charles A. Neal, chairman; Alfred W. Dodd, M. F. Owens, A. T. St. Clair and E. H. Snyder. Arbitration—Alfred W Dodd, chairman; W. T. Landrum and C. W. Welch. Annual Meeting Arrangements Committee—Edwin J. Greve, chairman; M. D. Harbaugh, R. E. McCormack, William F. Rossman, John A. Schaeffer, and Arthur Thacher. Lithopone Manufacturers—Joseph J. Mangin, chairman; C. H. Rupprecht and T. H. Zappert. Prime Western Zinc Producers—B. N. Zimmer, chairman; H. M. Brush, Benno Elkan, E. W. Furst and Julius W. Hegeler. No committee on research and market extension has been appointed.

Viscose Co. and Du Pont Rayon Co. resign from the Rayon and Synthetic Yarn Association. Samuel A. Salvege, president, Viscose, and Leonard A. Yerkes, Du Pont Rayon president, resign offices in trade association of president and vice-president, respectively. In view of present conditions, companies felt that they could not continue their membership, it was reported. All other members are continuing their activities. Hiram Rivitz, president, Industrial Rayon Corp. was elected chairman to serve until elections could take place.

Driver-Harris Co. contracts with Krupp-Nitrosta group to become licensee under stainless steel patents. Also applies for patent for remelting steel scrap process.

International Filter Co. moves general offices to 59 East Van Buren st., Chicago.

National Barium Co. offices move to 756 South Broadway, Los Angeles, Cal.

American Smelting & Refining Co. joins Mining Trust, Ltd. in developing silver, zinc and lead mines at Mount Isa, Australia.

United Chemicals, Inc., opens new research laboratory at Warner Chemical plant, Carteret, N. J.

Oxweld Acetylene Co. introduces two small capacity manifolds for small users of oxygen and acetylene.

Dye Royalty Cases Set for October Court

Royalties cases pertaining to German chemical patents seized by government during the war, now under conflicting inferior court decisions, will be considered in October term of Supreme Court. Former German owners have applied for writ of certiorari to Circuit Court of Appeals. Patents involved have been administered by Federal Trade Commission, licensed to E. I. du Pont and about a year later sold to Chemical Foundation, Inc. by Alien Property Custodian. Former owners have sued to recover royalties before acquisition by Alien Property Custodian, and Chemical Foundation for royalties after, out of fund held by treasurer of United States. Lower courts held former owners were not entitled to royalties, but all were due the Chemical Foundation. German owners claim this decision contrary to all patent law and practice. Foundation contends custodian seized former owners' rights. Government wants all decisions uniform for proper disbursement of fund.

Oberphos Co., Baltimore, is organized to exploit certain improved processes for manufacture of fertilizers and superphosphates. Substantially interested are G. Ober & Sons Co. and Koppers Co. through its subsidiary, Bartlett-Hayward Corp. Board:—H. B. Rust, W. L. Rust, Howard Bruce, Gustavus Ober, Jr., Harry N. Baetjer, Beverly Ober. Gustavus Ober, Jr., president, G. Ober & Sons Co., is president. Mellon interests are identified through R. B. Mellon and R. K. Mellon, Pittsburgh, members of Koppers Co. board. Authorized capital is 16,000 shares, of which 6,000, $100 par value share will be 6 per cent cumulative preferred and 10,000 no par common.

Colgate-Palmolive-Peet Co. files answer to complaint of Federal Trade Commission regarding use of "naphtha" on its products, admitting it still sells "Peet's A-B Naphtha Sopa" but declaring it does not mislead or deceive public and adding that phrase "a chemical union of ammonia and naphtha", used on label of soap, should have been dropped some time ago when ammonia use was discontinued, but has been used inadvertently and will now be stopped.

Du Pont chemists develop lacquer for coating automobile motor ignition cables, which increases general efficiency by at least ten per cent. Packard Electric Co. technical staff assisted in development.

SAMPLE BALLOT

FOR THE CHEMICAL MARKETS MEDAL

To be awarded for Distinguished Economic Services to American Chemical Industries

VOTE FOR ONE

	E. M. ALLEN
	LEO H. BAEKELAND
	H. H. DOW
	PIERRE S. du PONT
	GEORGE EASTMAN

Read the important instructions on the reverse side or your vote may be void.

Every paid subscriber of record to CHEMICAL MARKETS *will receive a ballot like the sample alongside, in order that he may register his choice for the chemical executive to whom will be awarded the Chemical Markets Medal for distinguished economic services to the industry. With the ballots will be two envelopes—one to return to us; the second to be enclosed within the first, which will contain the ballot, and which will be opened only by the Committee of Tellers appointed from among our Consulting Board of Editors. Please note the voting instructions as unless they are followed your ballot may be thrown out by the Tellers. The polls will close September fifteenth, and your vote to be counted must be returned by noon of that day.*

VOTING INSTRUCTIONS:

1. Check the name of the candidate you believe has rendered greatest service as a business leader in chemical fields.

2. Enclose ballot in yellow envelope to be opened only by the tellers.

3. Enclose yellow ballot envelope in return envelope addressed to Chemical Markets.

4. Sign the return envelope to prevent the casting of unauthorized votes.

5. Ballots must be received prior to noon, Monday, September 15th, 1930.

Pure
PHTHALIC ANHYDRIDE

FLAKE OR CRYSTAL

The quality of your product and the efficiency of your process are largely determined by the quality of the raw materials you use.

For over twelve years ***Selden Brand*** PURE PHTHALIC ANHYDRIDE has been the standard for uniformity and purity, being absolutely free from all odor, color and other impurities of any kind.

Safeguard your product and increase your profits by specifying ***Selden Brand*** PHTHALIC ANHYDRIDE.

Available in any quantity from a barrel to a carload.

The flaked is packed in barrels weighing 250 pounds net and the Crystals, 150 pounds net. All barrels are paper lined.

∴ *For Use In* ∴

Anthranilic Acid
Anthraquinone
Benzoic Acid
Bromofluoresceic Acid
Diamyl Phthalate
Dibutyl Phthalate
Diethyl Phthalate
Eosine
Erythrosine
Fluorescein
Phenolphthalein
Phthalimide
Tetrachlor Phthalic Acid

The SELDEN Company

Sales Division
535 Fifth Avenue
New York, N. Y.

This Letter Is Not A Forgery

It has been circularized to an extensive "sucker list"

Quite regardless of political faith or economic belief the plain business expediency of assisting the Soviet Government in their ambitious "five year plan" to establish a modern chemical industry in Russia under communistic regime is open to question. No such problems are involved in the proposal suggested so gracefully in the invitation tendered in the letter alongside. Such valuable information in exchange for "any charge for these samples" is not a fair bargain even in the socialist sense.

Simplicity is not traditionally one of the dominant characteristics of the Russian soul. Neither direct dealing, nor frankness in speech, nor a sweet and trusting spirit are commonly regarded as typical of the various Slavic and Oriental elements which make up the Russian people. A simple-minded blunder in policy prompting such a letter must therefore, be discounted and we must seek another—and less complimentary—explanation.

Are not Americans famous for their gullibility? Texas Guinan proved it by greeting her Night Club patrons: "Hello, Sucker!" and then charging proportionally.

Are not Americans all money mad? We are said to tremble at the mere threat of the loss of our export business with Amtorg, a loss incidentally of less than two per cent. of our foreign business.

Such a line of reasoning leads back naturally enough to a serious questioning of the wisdom of setting up as chemical competitors a great and undoubtedly powerful organization run by business brains so obviously more astute than our own.

TELEPHONES LEXINGTON 2980-1-2-3-4

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NEW YORK

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CHITA, KHABAROVSK

July 2, 1930

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IN YOUR REPLY PLEASE MENTION OUR REFERENCE

FIB31

Gentlemen:

We are organizing a small exhibit of specialties produced in this country, to be held in Moscow, Leningrad and New York, and would be glad to have small samples of your products in triplicate. We would also like to have, together with this, a brief description or circular stating the methods of producing, the materials used, and the various uses of your products. We would also appreciate hearing from you as to what you consider the best equipment in the manufacture of same.

If there is any charge for these samples, we shall be glad to remit upon receipt of your bill.

Thanking you in advance for your courtesy in replying, we remain

Very truly yours,

AMTORG TRADING CORPORATION

BY: J. G. Ohsol

J. G. Ohsol
Vice-President

JGO:MG

New Incorporations

Gerstenzang Chemical Co., New York—D. G. Berger, 100 shs com.

Parascent Products Corp., Rochester, N. Y., chemical—E. C. Redfern $25,000.

Carox Engineering Corp., New York, chemical deposits—Prentice Hall, Inc., of Delaware, 20,000 shs com.

Industrial Gas Engineering Corp., Wilmington, Del., plants for industrial gases—Corporation Service Co., 1,000 shs com.

North Shore Shareholders Corp., Wilmington, Del., coke, charcoal, chemicals, dyes—Corporation Trust Co., $75,000.

Calcia Products Corp., New York, lime—G. Natanson, $50,000.

Nostane Products Corp., Brooklyn, chemicals—F. Seligman, $20,000.

Chemical Research Co., Elizabeth, N. J., manufacture chemicals—H. C. Ficke, 500 shs com.

Industrial Sugar Products Corp., Wilmington, Del., synthetic resins—Corporation Trust Co., 300,000 shs com.

Grinhold, New York, chemicals—Hartman, Sheridan, Tekulsky, Pecora, $10,000.

Oil Fertilizers Co., Wilmington, Del., chemicals—Corp. Trust Co., 1,000 shs com.

Larned Corp., New York, chemicals—G. C. Holton, $100,000.

Cedarkote Products Corp., paints—Janover & Janover, 200 shs com.

Elcomet, Inc., Newark, N. J., deal in chemicals—William E. Hampson, $10,000 pfd, 2,300 shs com.

Associated Block & Tile Corp., Glen Falls, N. Y., cement, lime, limestone—Co-operative Corp. Co., $100,000.

Thomas W. Houchin Corp., Jersey City, insect powders—Blanchard & Carey, $2,000.

Columbia Chemical Corp., Wilmington, Del., fuller's earth, other minerals—Corp. Trust Co., $1,075,000.

Empire Color & Chemical Co., New York, M. Ehrlich, $100,000.

Union Chemical Corp., Syracuse, N. Y.—Lee, Clasen & Matterson, $20,000.

Santa Fe Dioxice Co., Wilmington, Del., ice solidified carbon dioxide, dioxcie—Corp. Service Co., $300,000.

Imperial Chemical Industries, Ltd., petitions for leave under Companies Act, 1929, compulsorily to acquire shares of members of the United Alkali Co., Ltd., which refused to come into merger scheme. Petition was opposed by the holders of 982 ordinary shares and by B. Margerison, of Leeds, a preference shareholder. Petitioning company said it was formed to acquire the shares of the United Alkali Co., Brunner Mond & Co., the Noble Industries, and the British Dyestuffs Corp., and now had a capital of £95,000,000. The merger scheme was approved by more than the requisite nine-tenths of the holders of both classes of shares in the United Alkali Co. Counsel for Margerison said he held 500 preference shares. He contended that the offer of 21s. was wholly insufficient and asserted that it deprived him of valuable rights of participation in the surplus assets of the company in the event of liquidation. Mr. Margerison felt aggrieved because he was never told that his shares carried anything beyond the fixed 7 per cent dividend; said it was extremely difficult to come to any satisfactory conclusion as to the value of the shares, but taking into consideration the evidence and the arguments addressed to him he had formed the opinion that the proper price to be paid for the ordinary shares was 45s. each, and for the preference shares 25s. each.

The Imperial Company was ordered to pay the costs of the petition.

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- ANILINE
- DIMETHYLANILINE
- DIPHENYLAMINE

For *Uniformity* STANDARDIZE *on* du Pont Organic Chemicals

CONTINUOUS and constantly increasing production yields intermediates that are always uniform in quality and of the highest commercial purity. This is particularly true of Nitrobenzene (Oil of Mirbane) and its derivatives: Aniline, Dimethylaniline, and Diphenylamine . . . all of which have been manufactured by us in large quantities since the beginning of the Great War. You can safely standardize on du Pont Organic Chemicals for any purpose.

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REG. U.S. PAT. OFF.

E. I. DU PONT DE NEMOURS & COMPANY, INCORPORATED
Intermediates Section *Wilmington, Delaware*

Organic Chemicals

The Financial Markets

Colgate-Palmolive-Peet Reports Gain in Net Profits

Despite Lower Sales Volume in First Six Months Net Profit Shows Increase of 19 Per Cent for 1930—Company in Favorable Position on Raw Materials—Foreign Business Shows Decided Gain.

Colgate-Palmolive-Peet Co., reports net for first six months as $3,760,625, an increase of $597,476, or about 19 per cent over net of $3,163,149 for like period 1929, notwithstanding that sales volume in first half was lower than corresponding period of 1929, and prices of its leading products somewhat lower than year ago.

Sharp decline in price of raw materials used by company and further economies in selling and administrative expenses effected during 1929 caused increase in net income, according to C. S. Pearce, president. These economies did not have any apparent effect, however, on earnings of company until first half of this year.

Principal raw materials used by Colgate are cocoanut oil, palm oil, olive oil and tallow. Decline in price of these materials has been proportionately greater and more rapid than decreases in the prices of the company's products. Prices of these oils and tallow are now near their lows and appear firm at present levels. Oil trade circles understand Colgate has accumulated the largest stock of raw materials it ever has owned at the lowest prices it ever has paid.

Drop in prices of its raw materials was reflected only in part in first half net. It should have greater influence on the second half results as the company purchases its raw materials for future delivery sometimes as much as six months in advance. With any increase in the sales volume during the current half of this year, the low prices paid for raw materials during the past six months should result in a substantial increase in the earnings for the period, which normally are better than in the first half.

Foreign business of Colgate during six months ending June 30 was exceptionally good and played an important part in effecting an increase in net for the period. Growth of the Mexican business was outstanding, and foreign business as a whole was on a profitable basis and better than ever before. Through its many foreign connections, Colgate covers almost the entire world. Sales and profits for past four years compare as follows:

Year ended Dec. 31:	*Net Sales*	*Net profit after fed. taxes*	**Earnings a share on com.*
1929	$100,560,689	$8,910,631	$4.03
1928	104,534,371	6,127,173	2.67
1927	100,089,017	8,279,485	3.69
1926	101,473,841	6,390,793	2.78

*Based on 1,999,970 common shares now outstanding.

Hercules Powder Earnings Lower

Hercules Powder Co. reports for six months ended June 30, 1930, net profit of $1,598,468, after depreciation and federal taxes, equivalent after dividends on 7 per cent preferred stock, to $1.99 a share on 603,079 no-par shares of common stock. Comparing with $2,035,538 or $2.74 a share on 598,000 common shares in first half of 1929.

Net profit for quarter ended June 30, amounts to $866,933 after above charges, equal to $1.10 a share on 602,079 common shares, comparing with $731,535 or 88 cents a share on 598,000 common shares in preceding quarter and $1,096,492 or $1.50 a share on 598,000 common shares in second quarter of previous year.

Mathieson Earns 81 Cents a Share in Second Quarter

Mathieson Alkali Works, Inc., reports for quarter ended June 30, 1930, net income of $565,687 after depreciation, depletion, federal taxes, etc., equivalent after dividend requirements on 7 per cent preferred, to 81 cents share on 650,380 no-par shares of common stock. This compares with $541,946, or 76 cents a share on 650,436 common shares in preceding quarter and $610,-697, or 96 cents a share on 588,328 shares in June quarter of 1929.

Net income for six months ended June 30 amounted to $1,107, 633 after above charges, equal to $1.57 a share on 650,380 common shares against $1,117,371, or $1.75 a share on 588,328 common shares in first half of previous year.

Income account for quarter ended June 30, 1930, compares as follows:

	1930	*1929*	*1928*
Operating profit	$922,048	$941,367	$859,340
Depreciation and depl	301,290	257,420	227,897
Profit	$620,758	$683,947	$631,443
Other income	14,891	10,131	*8,697
Total income	$635,649	$694,078	$622,746
Federal taxes	69,962	83,381	66,080
Net income	$565,687	$610,697	$556,666

Six months ended June 30:

	1930	*1929*	*1928*
Operating profit	$1,788,460	$1,772,682	$1,595,912
Depreciation and depl	582,929	514,681	453,966
Profit	$1,205,531	$1,258,001	$1,141,946
Other income	35,815	16,821	*22,965
Total income	$1,241,346	$1,274,822	$1,118,981
Federal taxes	133,713	157,451	132,852
Net income	$1,107,633	$1,117,371	$986,129

*Debit

Celanese Lists Shares on Exchange

Celanese Corporation of America lists its original issue of 1,000,000 shares, no-par value, on New York Stock Exchange.

Net earnings of the Celanese Corporation, as revealed in listing statement, reached a three-year peak in 1929 at $2,952,321 after interest and depreciation. This was equal after charges to $1 per common share. Company had on December 31 total assets of $40,159,224 and current assets of $17,806,646. Total current liabilities were $1,361,143, while the company had an earned surplus of $3,111,759.

Company has outstanding a total of 114,818 shares of $100 par value 7 per cent prior preferred stock of an authorized issue of 250,000 shares and 148,179 shares of $100 par 7 per cent participating preferred stock of an authorized issue of 150,000 shares. All the common authorized, 1,000,000 shares is outstanding. The company has sold no new common stock since July 1927.

Federated Metals Corp. and subsidiaries for six months ended May 31, 1930, shows net loss of $482,082 after interest, depreciation and inventory losses. In same period of previous fiscal year company reported profit of $714,181 after interest and depreciation, but before federal taxes.

Balance sheet as of May 31, shows current assets, including $2,575,311 cash, of $8,999,722 against current liabilities of $731,910.

Sun Oil Co. declares regular quarterly dividends of 25 cents on common, payable September 5 to stock of record August 25, and $1.50 on preferred, payable September 1 to stock of record August 11.

NITROCELLULOSE

With greatly increased production made available by the installation of new and modern manufacturing equipment, we are in a position to supply promptly all grades of nitrocellulose in any desired quantity.

We know that our product is manufactured under careful chemical control, and with unfailing uniformity.

We know that you will find it of exceptional quality and color . . . that it will go into solution more quickly . . . that it is the best product for you to use.

Sole Sales Agents for our Subsidiary,
American Powder Company

Industrial Chemicals Division
American Cyanamid Company
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AMERICAN CYANAMID COMPANY
535 Fifth Avenue, New York City.

You may arrange for your representative to call upon us and discuss Nitrocellulose.

Name.....

Company.....

Address.....

.....

Texas Gulf's Half Year Net Favorable

Texas Gulf Sulphur Co., Inc., reports for quarter ended June 30, 1930, net income of $3,648,345 after depreciation and federal taxes, but before depletion, equivalent to $1.43 a share on 2,540,000 shares of no-par stock. This compares with $3,803,701 or $1.50 a share in preceding quarter and $3,571,270 or $1.40 a share in June quarter of 1929.

Net income for first six months of 1930 amounted to $7,452,046 after above charges equal to $2.93 a share, comparing with $7,451,530 or $2.93 a share in first half of previous year.

During the last quarter the company increased its reserves for depreciation and accrued federal taxes, by $329,538, making total of these reserves $12,905,044 on June 30, 1930.

Statement for quarter ended June 30, 1930, compares as follows:

	1930	*1929*	*1928*	*1927*
*Net income	$3,648,345	$3,571,270	$3,586,819	$3,262,277
Dividends	2,540,000	2,540,000	2,540,000	2,540,000
Surplus	$1,108,345	$1,031,270	$1,046,819	$722,277
†P & L surp	23,760,607	17,672,613	12,538,122	10,040,998

Six months ended June 30:

	1930	*1929*	*1928*	*1927*
*Net income	$7,452,046	$7,451,530	$6,674,658	$6,116,908
Dividends	5,080,000	5,080,000	5,080,000	5,080,000
Surplus	$2,372,046	$2,371,530	$1,594,658	$1,036,908

*After depreciation and federal taxes. †Including reserve for depletion.

DuPont Earnings Show Slight Drop

E. I. du Pont de Nemours & Company in semi-annual report shows $1.33 a share earned on the average number of 10,629,447 shares of common stock outstanding for the second quarter of year which compares with $1.44 a share earned on average number of 10,298,553 shares outstanding for same period of last year. At end of June it was announced that earnings for second quarter of 1930 (with the months of June estimated) would be $1.31 a share. Total gross assets of the company amount to $595,228,980. Current assets amount to $107,309,758, including: Cash, $20,045,709; marketable securities and call loans, $13,700,433; accounts receivable, $25,729,992; notes receivable, $2,496,733; and inventories at cost, $45,336,889.

Current liabilities amount to $16,623,213, making a ratio of current assets to current liabilities of 6.45.

STATEMENT OF CONSOLIDATED INCOME ACCOUNT

	Six Months Ended June 30th	
	1930	*1929*
Income from Operations	$14,705,317	$16,784,899
Income from Investment in General Mortors Corp.	17,965,065	24,950,131
Income from Miscellaneous and Marketable Securities, etc.	2,025,373	2,000,329
Total Income	$34,695,755	$43,735,359
Provision for Federal Income Tax	1,708,063	2,157,550
Net Income before Interest on Bonds	$32,987,692	$41,577,809
Interest on Bonds of Subsidiary Companies	36,378	41,397
Net Income	$32,951,314	$41,536,412
Dividends on Debenture Stock	2,985,957	2,861,443
Amount Earned on Common Stock	$29,965,357	$38,674,969
Average Number of Shares of $20.00 par value Common Stock outstanding during the period.	10,546,570	10,068,281
Amount Earned a Share	$2.84	$3.84

Alpha Portland Cement Co. reports for 12 months ended June 30, 1930, net income of $1,408,916 after depreciation and federal taxes, equivalent after 7 per cent preferred requirements, to $1.78 a share on 711,000 no-par shares of common stock. This compares with $2,375,368 or $3.14 a share in the 12 months ended June 30, 1929.

Commercial Solvents Net $1,497,517

Commercial Solvents Corp. reports for quarter ended June 30, 1930, net profit of $747,025 after depreciation, federal taxes and provision for contingencies and inventory adjustments, equivalent to 30 cents a share on 2,481,876 shares on no-par common stock. This compares with $750,492 or 30 cents a share on 2,481,232 shares in preceding quarter and $953,569, or 38 cents a share, based on present number of shares in June quarter of 1929.

Net profit for six months ended June 30 amounted to $1,497,517 after above charges, equal to 60 cents a share, comparing with $1,797,924 or 72 cents a share on present number of shares in first half of previous year.

Income account for quarter ended June 30, 1930, compares as follows:

	1930	*1929*	*1928*	*1927*
Oper profit	$941,342	$1,191,239	$777,021	$932,660
Other income	58,078	115,779	28,129	16,252
Total income	$999,420	$1,307,018	$805,150	$948,912
Other deduct	27,841	126,965	62,221	82,377
Fed'l tax, etc	*224,555	226,484	117,415	177,612
Net profit	$747,025	$953,569	$625,514	$688,923

Six months ended June 30:

	1930	*1929*	*1928*	*1927*
Oper profit	$1,856,371	$2,320,880	$1,508,709	$1,603,298
Other income	126,048	163,551	43,231	34,662
Total income	$1,982,419	$2,484,431	$1,551,940	$1,637,960
Other deduct	54,269	246,030	120,838	124,187
Fed'l tax, etc	*430,633	440,477	229,862	298,751
Net profit	$1,497,517	$1,797,924	$1,201,240	$1,215,022

*Includes provision for contingencies and inventory adjustments.

Vanadium Corp. of America declares regular quarterly dividend of 75 cents, payable August 15 to stock of record August 1.

P. J. Gibbons is elected secretary and treasurer to succeed Nils Falk, deceased. Mr. Gibbons was formerly assistant secretary and treasurer.

Will & Baumer Candle Co. declares regular quarterly dividend of 10 cents on common, payable August 15 to stock of record August 1.

New York Stock Exchange lists McKesson & Robbins, Inc., $22,000,000 20-year 5½ per cent convertible debentures, due May 1, 1950.

Noxema Chemical Co. declares special midsummer dividend of 5 per cent, payable July 24 to stockholders of record July 19. Increase of 35 per cent was reported in first six months sales.

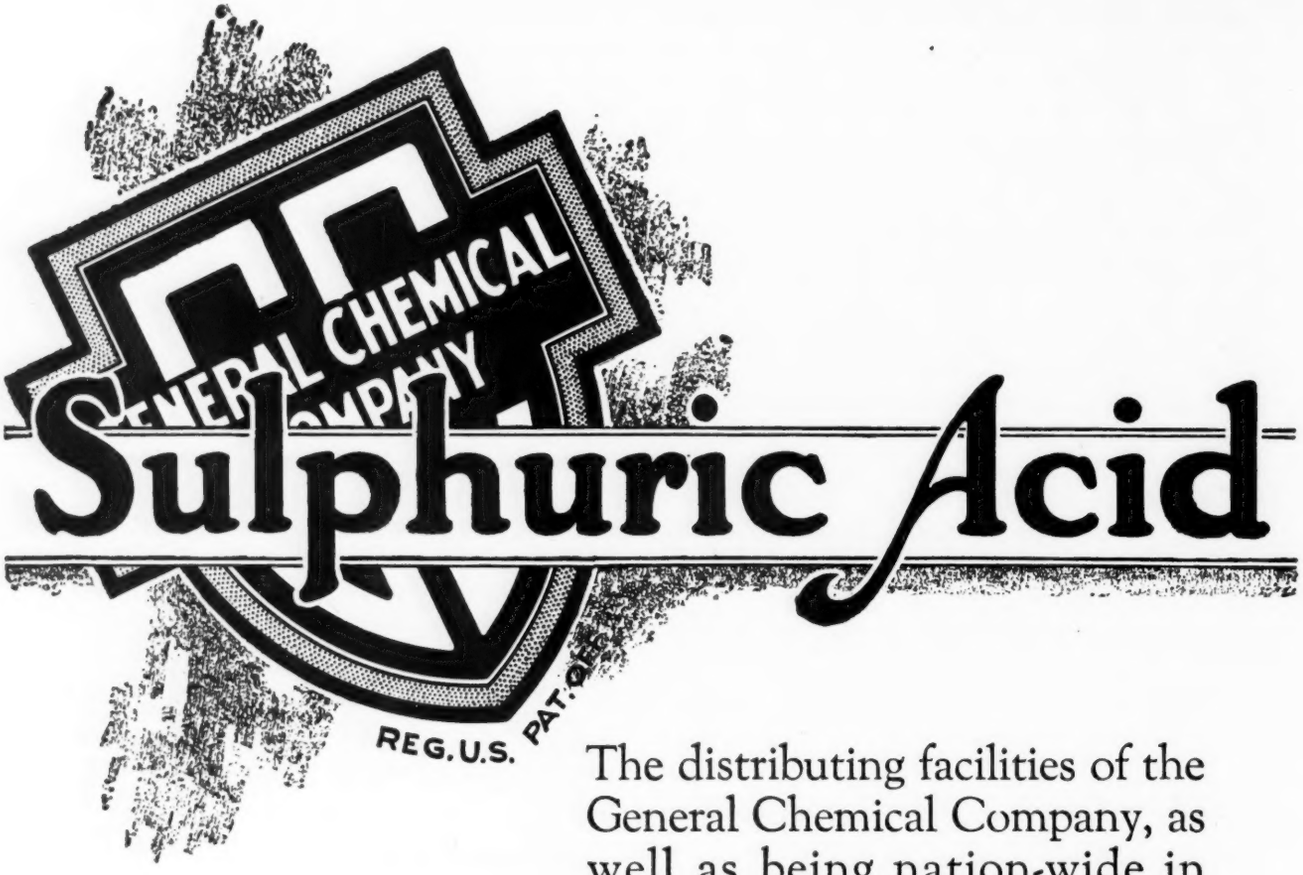
Sun Oil Co., and subsidiaries report net earnings for six months ending June 30, after interest, depreciation and other charges, of $3,658,157, equivalent to $2.42 on 1,409,323 no-par value shares. First six months earnings in 1929 was equivalent to $2.68 a share.

Sun Oil is one of three large oil companies which has not joined Hydro Patents Co.

Courtaulds, Ltd., declares interim dividend 3 per cent. tax free as against 4 per cent. in 1929.

Parker Rust Proof Co. reports for six months ended June 30, 1930, net profit of $311,098 after charges and federal taxes, equivalent after dividend requirements on 7 per cent. preferred stock to $3.43 a share on 88,843 no-par shares of common stock.

Dome Mines, Ltd., reports for three months ended on June 30 loss of $40,764 before depreciation and depletion, contrasting with net earnings of $655,486 in the corresponding period of 1929. For six months ended on June 30 company had net earnings of $48,823 after expenses and Federal taxes but before depreciation and depletion, compared with $1,208,895 in first half-year of 1929.



The distributing facilities of the General Chemical Company, as well as being nation-wide in scope, are in many instances highly specialized. For tank cars alone, the Company maintains its own repair shops which perpetuate an enviable record of deliveries and safeguard future shipments.

Thus Sulphuric Acid is available in any customary quantity the country over, on practically a moment's notice.

General Chemical Company's Principal Products Include:

Muriatic Acid
Acetic Acid
Nitric Acid
Sodium Sulphide
(Chip Patented)
Glauber's Salt
Sodium Silicate
Disodium Phosphate
Trisodium Phosphate
Sodium Sulphite
Anhydrous Bisulphite Soda
Baker & Adamson Quality
Reagents and Fine Chemicals
C. P. Acids
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PHILADELPHIA
SAN FRANCISCO

THE NICHOLS CHEMICAL CO., LTD., MONTREAL

Atlas Powder Has Poor Half Year

Atlas Powder Company and subsidiaries report for the six months ended on June 30, a net profit of $725,023 after depreciation, Federal taxes and other charges, equivalent, after dividend requirements on the preferred stock to $1.74 a share on the common stock. This compares with a net profit of $1,194,726 or $3.54 a share, in the first half-year of 1929. For the three months ended on June 30, the net profit was $374,326, or 91 cents a share, compared with $671,637, or $2.06 a share, in the three months ended on June 30, 1929.

Owens Illinois Glass Co., declares quarterly dividend of 75 cents on common, placing stock on $3 basis instead of $4. Regular $1.50 a share dividend on preferred is also declared.

William E. Levis, president, commenting on dividend reduction said: "Reduction in common dividend rate was due to general business conditions and a desire of the directors to maintain a strong current position. The company's volume of business for first six months compared favorably with like period last year."

Union Carbide and Carbon Corporation reports for the June quarter a consolidated net income of $6,306,803, after interest dividends on preferred stocks of subsidiary companies, depreciation and other charges, equivalent to 70 cents a share on the 9,000,743 common shares outstanding on June 30. This compares with $6,472,783 in the first quarter of this year, or 72 cents a share, and $7 324,297, or 87 cents a share in the second quarter of 1929.

Monsanto Chemical Works and subsidiaries report for the three months ended on June 30 consolidated net earnings of $329,227 after taxes and all other charges, equivalent to earnings of 80 cents a share on the stock outstanding on June 30. Since the company acquired several properties in the last half of 1929, no strictly comparable figures are available for the three months ended on June 30 last year.

The Dow Chemical Co., for the year ended May 31, 1930, reports a net profit of $2,782,011 after charges and taxes equivalent, after 7 per cent preferred dividend requirements, to $4.08 a share on 630,000 no-par shares of common stock. This compares with a net profit of $2,437,000 in the previous fiscal year which, computed on the above share basis, is equal to $3.53 a share.

Air Reduction Company, Inc., reports for the six months ended on June 30 a net profit of $2,883,845, after taxes, equivalent to earnings of $3.64 a share. This compares with $2,730,333, or $3.61 a share in the first half year of 1929. For the three months ended on June 30, net profits were $1 360,569, compared with $1,492,771 in the three months ended on June 30, 1923.

Container Corporation of America reports for the six months ended June 30 net profit of $316,183, after all charges equal, after preferred dividend requirements, to 4 cents a share on the common. This compares with profit of $137,361, or 24 cents a share, in the first half of 1929.

Colorado Fuel & Iron Co. declares regular quarterly dividends of 50 cents on the common and $2 on preferred, both payable August 25 to stockholders of record August 11.

International Agricultural Corp. declares the regular quarterly dividend of $1.75 on the preferred stock, payable September 2 to stock of record August 15.

Johns-Manville Gains in Second Quarter

Johns-Manville Corp. and subsidiaries report for quarter ended June 30, 1930, net profit of $998,529 after expenses, federal taxes, etc., equivalent after dividend requirements on 7 per cent preferred, to $1.16 a share on 750,000 no-par shares of common stock. This compares with $741,630 or 81 cents a share in preceding quarter and $1,933,007 or $2.40 a share in June quarter of 1929. Net profit for six months ended June 30, amounts to $1,740,160 after above charges, equal to $1.97 a share on common against $3,039,096 or $3.70 a share in first half of previous year.

Consolidated income account for quarter ended June 30, 1930, compares as follows:

	1930	*1929*	*1928*
Sales	$13,397,256	$16,567,756	$12,305,155
Costs & exp	12,283,021	14,390,153	10,536,692
Balance	$1,114,235	$2,177,603	$1,768,463
Federal taxes	115,706	244,596	168,025
Net profit	$998,529	$1,933,007	$1,600,438

Six months ended June 30:

	1930	*1929*	*1928*
Sales	$25,561,918	$29,591,640	$22,343,730
Costs & exp	23,603,985	26,175,383	19,695,644
Balance	$1,957,933	$3,416,257	$2,648,086
Federal taxes	217,773	377,161	274,942
Net profit	$1,740,160	$3,039,096	$2,373,144

Angela Nitrate Co. profit and loss account shows gross profit for year ended December 31, 1929, of £9,225, and after deducting London expenses, income tax (Chile), legal charges, interest, etc., there is net profit of £3,847, to which is added balance brought forward of £3,019, making £6,866. Interim dividend of 10 per cent (2s per share), less tax, paid November 25, 1929, absorbed £5,600, leaving balance of £1,266 to be carried forward. Report states that manufacture of nitrate has proceeded steadily throughout the year.

Westvaco Chlorine Products Corporation reports for the three months ended on June 30 earnings of $210,992, after depreciation and Federal taxes, equivalent after preferred dividend requirements to earnings of 76½ cents a share on the outstanding common stock. For the six months ended on June 30, the earnings were equivalent to $1.66 a share on the common stock, compared with earnings of $2.24 a share in the corresponding period of 1929.

Lehn & Fink Products Company reports for six months ended June 30 net profits, after taxes, of $918,383, equivalent to earnings of $2.19 a share on outstanding common stock. In corresponding period of 1929 net profits were $923,116 or $2.20 a share.

Patterson-Sargent Company reports for the eight months ended June 30 net profit of $624,883, after charges, depreciation and Federal taxes, compared with $622,151 in corresponding period of previous fiscal year.

Stockholders of American Zinc, Lead & Smelting Co. authorize directors to purchase, from time to time, shares of the $6 preferred at par ($25) and accrued dividends, which amount to $49.50 a share.

Consolidated Lead & Zinc Co. reports for six months ended June 30, 1930, profit of $74,992 after charges, but before depreciation, depletion and federal taxes.

Columbian Carbon Co. declares regular quarterly dividend of $1.25 and usual extra of 25 cents on voting trust certificates, both payable August 1, to stock of record July 17.

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Penick & Ford Quarterly Profit is $384,605

Penick & Ford, Ltd., Inc., and subsidiaries report for quarter ended June 30, 1930, profit of $384,605 after depreciation, etc., but before federal taxes. This compares with profit of $616,427 in preceding quarter and $356,152 in June quarter of 1929. Capital stock consists of 17,776 shares (par $100) of 7 per cent preferred and 424,965 no-par shares of common.

For first half of 1930 profit totaled $1,001,032 before federal taxes against $950,317 in first half of previous year.

	1930	*1929*	*1928*	*1927*
Gross	$2,561,603	$2,686,123	$2,081,474	$2,070,529
Expenses	†1,238,284	1,336,090	1,098,762	983,082
Depreciation	322,287	349,713	341,328	342,698
Interest	.....	50,003	90,547	109,996
*Profit	$1,001,032	$950,317	$550,837	$634,753

* † Last 6 months estimated

U. S. Leather Earnings Drop Sharply

United States Leather Company reports for the three months ended June 30 net profit of $19,859 after depreciation and other charges, equivalent to earnings of 13 cents a share on the 7 per cent prior preferred stock. This compares with net profit of $176,328, or $1.20 a share on the prior preferred, in the three months ended on March 31 and a net loss of $1,125,765 after inventory adjustments in the three months ended on June 30, 1929. For the six months ended on June 30 net profit was $196,187, or $1.34 a share on the prior preferred stock, compared with a net loss of $1,969,439 after inventory adjustments in the first half year of 1929.

Atlantic Refining Company and subsidiaries report for six months ended on June 30 profit of $2,819,000, equivalent to $1.05 a share on the common stock after preferred dividend requirements. This compares with $8,862,000, or $3.67 a share in first half-year of 1929.

Corn Products Refining Co., declares extra common share dividend of 50 cents. Profits for first six months show only minor recession from 1929. Net profits for first six months will approximate $2.25, comparing favorably with $2.36 for same period in 1929.

Deutsche Gold and Silberscheidenstalt increases capitalization to 35,700,000 marks to provide stock for exchange for shares of the Holzverkohlungsindustrie A. G. The latter produces acid and menthol synthetically.

Procter & Gamble Co. declares quarterly dividend of 60 cents on common, placing stock on $2.40 basis annually against $2 previously. Dividend is payable August 15 to stock of record July 25.

Armour & Co. of Illinois, and Armour & Co. of Delaware declared the regular quarterly dividends of $1.75 on their preferred stocks, both payable October 1 to stock of record September 10.

McKesson & Robbins, Inc., announces common dividends will be payable in the future at the same time as preference dividends.

New York Stock, Exchange announces that the National Starch Company's twenty-year 5 per cent. gold debentures, due July 1, 1930, are stricken from the list.

Solvay American Investment permanent certificates are listed, temporary certificates being stricken from list as of July 17.

Atlas Powder declares regular dividend of 1½ per cent on preferred, payable August 1 to stock holders of record July 18.

American Glue Sells Abrasive

American Glue Co., calls meeting, Aug. 7, to ratify sale of company's sandpaper and abrasive business to Carborundum Co., for $2,139,920 cash. Stockholders will also be asked to authorize officers to vote all stock of Baeder Adamson owned by American Glue, in favor of acceptance of Minnesota Mining & Mfg. Co.'s offer to buy the former. Minnesota Co., will pay for assets purchased $1,100,000 in 6 per cent ten year debenture bonds, 22,825 shares of stock and $658,175 in cash. So that stockholders may participate in advantages of proposed sale directors have voted to offer preferred stockholders privilege of surrendering shares at 135 and accrued dividends, offer to remain open sixty days.

Congoleum-Nairn, Inc., and subsidiary companies consolidated income account for the first six months, ending June 30, 1930, reveals a net income of $705,857.03 after the deduction of estimated income taxes of $87,240.72. Net profits before deduction of taxes were $793,097.79.

Profit from operations, before depreciation, was placed at $1,086,999.34, while other incomes totaled $207,675.64, or a total income of $1,294,674.98. The report shows a combined surplus of $18,506,947.19 at the close of the first six months.

Ohio Leather Comgany shows net earnings of $2.83 a share on the 48,657 outstanding shares of common stock for first six months of 1930, according to semi-annual report. This net result is after preferred dividends for period and preferred dividends in arrears were paid, totaling $93,399. After allowance for contingency funds, which total $173,553, aggregate net earnings for six months after all charges, including estimated Federal taxes, are $198,335.

The Pennsylvania Coal and Coke Company and subsidiaries report for the three months ended on June 30 a net loss of $79,068 after ordinary taxes, depreciation and depletion but before Federal taxes, comparing with a profit of $51,544 in the preceding quarter and a net loss of $28,589 in the three months ended on June 30, 1929. For the six months ended on June 30 net loss was $27,523 before Federal taxes, compared with a net loss of $24,351 in the first half year of 1929.

Procter & Gamble list 46,702 additional shares on Cincinnati Stock Exchange, used in part payment of purchase of James S. Kirk Co. to make application to list shares on N. Y. Stock Exchange.

Virginia Carolina Chemical Corp. declares regular quarterly dividend of $1.75 on 7 per cent prior preference stock, payable September 1 to stock of record August 15.

Portland Gas & Coke Co. declares regular dividend of $1.75 on the preferred stock, payable August 1 to stock of record July 18.

Societe Ardechoise de la Viscose reports net profit 1929 2,536,-651 francs and dividend of 80 francs per bearer share.

Gould Coupler sells Gould Storage Battery Co. to National Battery Co., St. Paul.

Georgia Manganese and Iron Co. is in equity receivership incidental to reorganization.

Kokswerke & Chemische Fabriken A. G. considers bond issue to pay off bank loans.

Illinois Glass Co., announce purchase of Berney-Bond Glass Co., Clarion, Pa.

Southern Glass Co., passes current dividend.

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Wrigley Gains Over Last Year

William Wrigley, Jr., Co., excluding foreign subsidiaries, for quarter ended June 30, 1930, shows net profit of $3,014,455 after depreciation, federal taxes, etc., equivalent to $1.50 a share on 1,999,974 shares of no-par stock. This compares with $2,643,426 or $1.32 a share on 1,999,974 shares in preceding quarter and $2,690,091 or $1.49 a share on 1,800,000 shares in June quarter of 1929.

Net profit for six months ended June 30, amounted to $5,657,881 after above charges, equal to $2.82 a share on 1,999,974 shares comparing with $5,211,990, or $2.89 a share, on 1,800,000 shares in first half of previous year.

Income account for quarter ended June 30, 1930, compares as follows:

	1930	*1929*	*1928*	*1927*
Oper profit	$5,467,559	$4,974,429	$4,892,568	$4,913,232
Expenses	1,989,759	1,790,071	2,022,065	1,942,785
Depr	127,995	494,267	*396,411	*513,574
Fed taxes	335,350	.....	.....	.....
Net profit	$3,014,455	$2,690,091	$2,474,092	$2,456,873

Six months ended June 30:

	1930	*1929*	*1928*	*1927*
Oper profit	$10,353,800	$9,650,868	$9,750,220	$9,353,906
Expenses	3,816,481	3,496,439	3,983,694	3,469,628
Depr	258,829	*942,439	*859,364	*1,005,286
Fed taxes	620,609	.....	.....	.....
Net profit	$5,657,881	$5,211,990	$4,907,162	$4,878,992

*Includes federal taxes.

North American Cement Corporation reports for the six months ended on June 30 net loss of $49,374 after depreciation interest, depletion, Federal taxes and other charges.

International Printing Ink Corp., advises New York Stock Exchange of proposed increase in authorized preferred stock to 250,000 shares from 98,457; common to one million from 400,000; also change in name to International-Newport Corp.

International Salt Earnings Higher

International Salt Co. and subsidiaries report for six months ended June 30, 1930, profit of $322,901, after charges and bond sinking fund, but before federal taxes, comparing with $231,298 in first half of 1929. Capital stock on June 30 amounted to 240,000 no-par shares.

In like 1928 period earnings of $3,108 were small due to price cutting that started late in 1927, but this was offset somewhat in last six months of 1928 with $344,477 earned, compared with $448,398 in last six months of 1929.

The following table shows net income after all charges but before taxes for six months' periods in the last four years:

June 30:	*Net Inc.*	*Dec. 31:*	*Net Inc.*
1929	$231,299	1929	$448,398
1928	3,108	1928	344,477
1927	160,620	1927	118,457
1926	148,611	1926	353,477

Financial Highs and Lows

These securities recorded new highs or lows during the month of July.

New Highs

Lago Oil
Wrigley

New Lows

Air Reduction
American Hide and Leather
Celanese American Corp.
Devoe & Reynolds pfd
DuPont
General Gas & Electric 7% pfd A
Glidden pfd
International Salt
Johns-Manville
Newport Co. A
Revere Copper & Brass
Superior Oil
United Dyewood pfd
U. S. Rubber pfd

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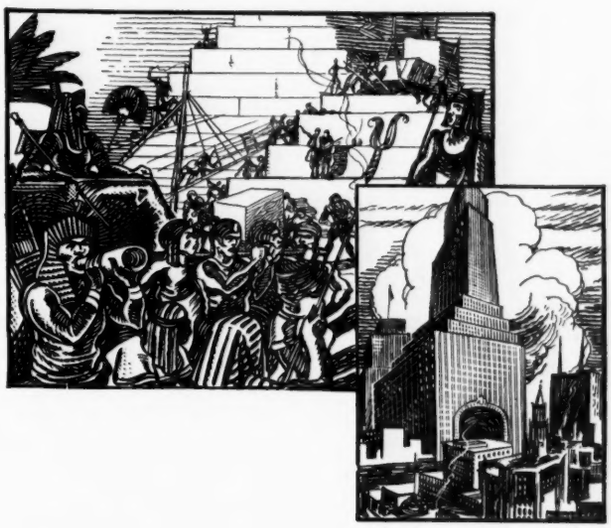
We shall be glad to send on request, copies of our new booklets, Alcohol for Industrial Purposes, and Standardized Chemicals



Pennsylvania Sugar Co.
Franco-American Chemical Works
Represented by
A. K. Hamilton
95 Wall Street **New York, N. Y.**
Sales representatives and warehouse stocks in principal cities
Distillery—Philadelphia, Pa. **Chemical Plant—Carlstadt, N. J.**

The Industry's Stocks

1930 July High	1930 July Low	1930 July Last	1930 High	1930 Low	1929 High	1929 Low	Sales In July	Sales During 1930	ISSUES	Par $	Shares Listed	An. Rate	Earnings $-per share-$	1929	1928
									NEW YORK STOCK EXCHANGE						
127⅞	103½	115	156⅜	103½	223⅜	77	286,700	1,227,500	Air Reduction	No	770,000	$3.00		5.63	4.61
275	240½	264	343	232	354½	197	49,600	302,800	Allied Chem. & Dye	No	2,286,000	6.00		12.60	11.12
123½	123½	123½	126½	121	125	118½	1,000	9,400	7% cum. pfd.	100	393,000	7.00		76.84	68.63
7⅜	4½	5½	10⅜	4½	23⅜	4	8,200	63,500	Amer. Agric. Chem.	100	333,000			Nil	1.59
36½	23½	36½	39	23	73½	18	14,700	76,100	6% cum. pfd.	100	285,000			2.47	7.86
15	9½	14½	33	9½	55	20	42,500	103,600	Amer. Com. Alc.	No	382,000	1.60		4.78	3.39
35⅜	31⅜	31⅜	51½	30⅛	81⅜	31½	16,000	243,600	Amer. Metal Co., Ltd.	No	868,000	3.00		3.23	3.58
109	103	108	117	103	135	106	200	1,300	conv. 6% cum. pfd.	100	69,000	6.00		47.53	26.52
70½	58½	66½	79½	53	130½	162	83,000	652,800	Amer. Smelt. & Refin.	No	1,830,000	4.00		10.02	8.24
137½	134½	136	141	133½	16½	15⅞	1,700	3,300	7% cum. pfd.	100	500,000	7.00		43.66	37.17
10½	6⅜	8½	22½	6⅜	92⅜	25⅜	6,400	252,300	Amer. Solvents & Chem.	No	181,000			2.56	1.69
25	18	22½	33½	18	138	123½	3,700	44,300	conv. $3 cum. pfd.	No	113,000	3.00		8.01	6.71
11¾	7½	9¾	17⅞	6½	49½	7	22,400	269,400	Amer. Zinc. Lead, & Smelt.	25	200,000		11 mo.	0.76	Nil
65	58	62	79⅜	50	111¼	49½	1,400	23,400	6% cum. pfd.	25	97,000	6.00	11 mo.	7.41	5.99
52½	48	50½	81½	44½	140	70	294,400	5,450,000	Anaconda Copper Mining	50	8,828,000	7.00	1928	6.63	3.37
23⅜	21	21½	29½	19½	49½	18⅜	13,700	207,900	Archer Dan. Midland	No	550,000	2.00	3 mo.	0.71	4.02
39½	34⅜	37½	51⅜	30⅛	77⅛	30	126,300	1,461,800	Atlantic Refining Co.	25	2,678,000	1.00		6.10	5.58
78⅜	68	68⅜	106	62	140	67	1,200	113,300	Atlas Powder Co.	No	260,000	4.00		7.66	4.39
105	101	...	106	101	106½	90	420	4,100	6% cum. pfd.	100	90,000	6.00		28.25	18.76
2⅜	2	...	5½	2½	12⅜	4⅜	2,700	48,800	Butte & Sup. Mining	10	290,000	2.00		Nil	0.28
3	2⅛	2½	4½	2⅛	9½	2	2,800	76,900	Butte Copper & Zinc	5	600,000			0.34	0.31
10½	6	8½	15⅜	5½	32	10⅞	5,700	103,700	Certain-Teed Products	No	400,000			Nil	Nil
40	20	...	45½	20	81½	45½	4,000	4,800	7% cum. pfd.	100	63,000		9 mo.	11.38	6.77
...	...	...	55½	65	51	127½	53	900	Chile Copper	25	4,415,000	3.50	9 mo.	4.54	4.52
59	51⅛	58	64⅞	50	90	40	7,700	53,800	Colgate-Palmolive-Peet	No	2,000,000	2.50		4.03	2.60
144½	113½	135	199	108	344	105	58,600	673,900	Columbian Carbon	No	457,000	4.00		7.84	6.39
28½	21¾	26⅜	38	20½	63	20⅛	529,100	4,397,500	Comm. Solvents	No	2,435,000	1.00		1.51	1.32
99	88½	94½	111⅜	87½	126⅜	70	68,400	366,400	Corn Products	25	2,530,000	3.00		5.49	4.35
147	144½	144½	147	137	144½	137	250	5,560	7% cum. pfd.	100	250,000	7.00		62.59	50.98
30	26	27	43⅜	24⅜	69½	21½	23,100	337,400	Davison Chem. Co.	No	504,000	1.00		3.34	1.58
23½	21⅜	25	42⅜	21⅜	64½	24	5,300	51,500	Devoe & Raynolds "A"	No	160,000	2.40		4.52	5.95
112½	112½	112½	115½	102	115½	102	10	880	7% cum. 1st pfd.	100	16,000	7.00		67.59	64.02
118⅜	95⅜	115	145½	95⅜	231	80	325,900	1,582,700	Dupont de Nemours	20	10,339,000	4.00		6.99	5.97
118¼	116½	116⅜	121	114⅜	119¾	107½	3,700	27,400	6% cum. deb.	100	978,000	6.00		78.54	69.06
217¼	186½	208⅜	255½	175⅜	264½	150	98,800	984,100	Eastman Kodak	No	2,263,000	5.00	1928	9.60	9.61
128½	128	...	128½	125⅝	128	117	50	1,160	6% cum. pfd.	100	62,000	6.00	1928	326.17	326.68
46⅞	38⅜	43⅞	50⅜	37	54⅞	23⅜	81,600	859,200	Freeport Texas Co.	No	730,000	4.00		5.60	4.49
48½	41½	45⅜	71⅜	38⅜	94⅜	42½	29,200	678,400	General Asphalt Co.	No	411,000	4.00		3.65	2.79
18½	15⅛	17	38	15⅛	64½	26	27,400	411,900	Glidden Co.	No	688,000	2.00		3.57	3.55
95	91	95	105½	90	106½	95	240	6,770	7% cum. prior pref.	100	74,000	7.00		39.51	32.69
63½	60½	62½	85	60	130	80	1,800	8,200	Hercules Powder Co.	No	568,000	3.00		5.95	22.04
121	120½	120½	123½	117	121	112½	390	1,740	7% cum. pfd.	100	114,000	7.00		38.16	35.35
98	78½	90½	124	73	135	68½	3,400	49,100	Industrial Rayon	No	191,006			7.26	8.68
6⅜	5½	5⅜	8½	4½	17⅞	4	5,900	133,300	Intern. Agric.	No	444,000			0.79	1.66
61	54½	57½	67⅛	52	88½	40	2,700	19,200	7% cum. prior pfd.	100	100,000	7.00		10.54	14.47
26½	22⅜	23⅜	44⅜	21	72⅜	25	535,000	6,686,800	Intern. Nickel	No	13,781,000	1.00		1.47	1.05
42	36	39	45⅜	36	80¼	61¼	147,500	285,750	Intern. Salt	100	61,000	6.00		11.32	7.23
88⅞	70	85	148⅜	70	242¼	90	205,200	1,400,500	Johns-Manville Corp.	No	750,000	3.00		8.09	6.75
18½	17½	18	25	17½	42	20	1,000	1,000	Kellogg (Spencer)	No	598,000	1.60		2.36	3.42
72½	64	69	81⅞	52⅜	113⅞	40	27,400	411,700	Liquid Carbonic Corp.	No	311,000	4.00		6.12	6.76
24⅞	20⅞	21⅜	37⅜	18⅜	59	21⅜	15,800	238,500	McKesson & Robbins	No	1,117,000	2.00	6 mo.	1.50	3.77
40	38	...	49½	35	63	40	1,700	21,740	conv. 7% cum. pref.	50	426,000	3.50	6 mo.	5.13	11.51
30	25¼	30	39⅜	24½	46	30½	1,600	22,000	MacAndrews & Forbes	No	384,000	2.60	9 mo.	2.21	3.30
95½	95½	95½	100	93	107⅜	104	60	910	6% cum. pfd.	100	28,000	6.00	9 mo.	44.84	65.48
39⅜	35½	38	51⅜	32⅜	72⅜	29	13,400	550,200	Mathieson Alkali	No	637,000	2.00		3.31	2.95
127	120	...	125	115	125	120	150	470	7% cum. pfd.	100	28,000	7.00		93.91	84.50
47½	36½	43	63⅜	35	80½	47	14,000	195,200	Monsanto Chem.	No	404,000	1.25		2.83	3.76
31½	26	28	39½	24½	58	15	6,400	156,300	National Dist. Prod.	No	275,000	2.00		1.32	Nil
135½	126	130	189½	125	210	129½	5,000	75,000	National Lead	100	310,000	5.00		25.49	11.45
141	140	140½	143	138⅛	141½	138	380	5,090	7% cum. "A" pfd.	100	244,000	7.00		41.95	24.10
119½	118	118	119½	116	23¾	115	290	2,630	6% cum. "B" pfd.	100	103,000	6.00		82.47	40.34
50½	50½	50½	85	50½	103	143	300	8,100	Newport $3 cum. conv. "A"	50	130,000	3.00		29.79	5.55
47½	38½	44	55⅜	26⅛	60⅞	22	33,300	437,900	Penick & Ford	No	434,000			3.97	2.56
109½	109½	109⅜	110	107	110	100	10	170	7% cum. pfd.	100	33,000	7.00		73.33	53.42
77½	66	73½	78⅛	52⅜	98	43½	68,500	379,300	Procter & Gamble	No	6,410,000	2.00	6 mo.	1.82	2.96
22½	20½	21⅞	27½	19⅜	30¾	20	39,400	657,500	Pure Oil Co.	25	3,038,000	1.50		3.06	0.97
113½	111½	112½	114½	110⅜	116	108	660	4,580	8% cum. pfd.	100	130,000	8.00		40.09	16.82
54½	51⅜	51⅞	56½	49⅛	64	43½	31,500	535,400	Royal Dutch		993,000		1928	24.09%	24.10%
41⅛	37½	38⅜	57⅛	33½	94	38⅜	17,100	266,400	St. Joseph Lead	10	1,952,000	2.00	6 mo.	2.22	2.30
20	18⅜	19	25⅜	18	31⅜	19	61,100	527,600	Shell Union Oil	No	13,069,000	1.40	9 mo.	1.39	2.04
63⅞	59½	62⅜	75	55½	31⅞	51½	76,800	983,200	Standard Oil, Calif.	No	13,016,000	2.50	1928	3.66	3.19
75⅜	63⅜	72	84⅞	58	83	48	1,415,500	8,717,100	Standard Oil, N. J.	25	25,419,000	1.00	1928	4.43	1.52
34⅛	31	32	40⅜	30	48⅛	31¾	138,000	1,770,900	Standard Oil, N. Y.	25	17,380,000	1.60	1928	2.28	0.67
12⅞	11⅛	12	17	10⅞	20⅛	9½	7,400	276,400	Tenn. Copper & Chem.	No	857,000	1.00	1928	1.48	0.51
53⅛	50½	52½	60⅛	50⅛	71⅛	50	100,300	1,119,600	Texas Corp.	25	9,851,000	3.00		4.91	5.34
60½	51⅞	58⅛	67⅞	48⅛	85½	42⅜	94,800	999,600	Texas Gulf Sulphur	No	2,540,000	4.00		6.40	5.72
76½	65	73½	106⅛	60⅛	140	59	197,600	3,530,500	Union Carbide & Carb.	No	9,208,000	2.40		3.94	3.72
55⅜	43½	51	84	40⅛	111⅜	40½	73,000	1,139,100	United Carbon Co.	No	393,000			1.75	1.99
82½	62⅜	64	139⅛	62	243⅜	95	37,600	918,400	U. S. Ind. Alc. Co.	No	373,000	6.00		12.63	10.29
106⅛	75	98⅜	143½	49⅜	116½	37½	2,388,700	6,747,800	Vanadium Corp. of Amer.	No	379,000	3.00		5.04	4.53
5	4	4½	8⅜	4	24½	3⅜	10,400	120,700	Virginia Caro. Chem.	No	479,000			Nil	0.69
24	22	23	34½	22	65½	15	3,400	38,200	6% cum. part. pfd.	100	214,000			3.06	7.57
78	76½	76½	82⅜	75	97½	69	300	6,420	7% cum. prior pfd.	100	144,000	7.00		12.35	20.09
45¼	30¾	39¾	59½	30⅞	94½	30	3,000	38,600	Westvaco Chlorine Prod.	No	123,000	2.00		4.32	3.60
									NEW YORK CURB						
6	5⅛	5⅛	13	5⅛	23	6	400	3,310	Acetol Prod. conv. "A"	No	60,000		1928	2.27	
...	...	...	34	19	43½	15		15,950	Agfa Ansco Corp.	No	300,000			Nil	
254½	210	250	356	210	539½	146	4,400	34,000	Aluminum Amer.	No	1,473,000		1928	8.03	5.00
109	106⅜	109	109½	105½	110	103	3,400	33,000	6% cum. pfd.	100	1,473,000	6.00	1928	14.04	10.26
159	141	159	232	108	280	99½	300	11,900	Aluminum Ltd.	No	573,000		1928	0.02	
23⅞	18⅜	22	37	17⅛	80	20½	89,500	1,479,700	Amer. Cyanamid "B"	No	1,260,000	1.60		1.56	3.68
38¼	26½	35	43⅜	15¼	45⅝	1	12,300	195,500	Anglo-Chilean Nitrate	No	1,757,000		6 mo.	Nil	Nil

1930 July High	1930 July Low	1930 Last	1930 High	1930 Low	1929 High	1929 Low	Sales In July	Sales During 1930	ISSUES	Par $	Shares Listed	An. Rate	Earnings $-per share-$ 1929	Earnings $-per share-$ 1928
									CLEVELAND					
96	95	95	138	95	98¾	92	235	3,144	Cleve-Cliffs Iron	No	498,000	5.00	8.41	3.80
79¼	73	75½	85	73	105½	75	1,574	6,232	Sherwin-Williams Co.	25	594,000	4.00	7.85	6.99
									CHICAGO					
42	37	41	46¾	35	52	36	1,400	19,615	Abbott Labs.	No	120,000	2.00	4.92	4.00
9½	9½	9½	15	9	26½	12	100	9,822	Monroe Chem.	No	100,000	1.50	2.54	1.76
94½	94	94	...	...	51	30	800	3,395	$3.50 cum. pref.	No	30,000	3.50	13.35	10.32
30	28	30	33¼	28	145	123	8,700		Swift & Co.	100	1,500,000	8.00	8.71	9.87
									CINCINNATI					
74½	68	73	78½	65	100	44¼	7,725	48,325	Procter & Gamble	No	6,410,000	2.00	6 mo. 1.82	2.96
									PHILADELHPIA					
97	89⅜	97	100	90	116	89	900	5,300	Pennsylvania Salt	50	150,000	5.00	10.64	8.27
									MONTREAL					
1	1	1	...	...	22½	2	151	7,828	Asbestos Corp.	No	200,000		Nil	Nil
4	4	4	...	...	68	12	15	2,196	7% non-cum pfd.	100	75,000		0.24	3.35
6	5	5½	7¼	4	45	5	867	7,770	Can. Ind. Alcohol "A"	No	969,000	1.52	1.90	2.87
70	65	69	75	61¾	111	65	6,804	126,584	Shawinigan W. & P.	No	2,178,000	2.50	2.35	2.17

The Industry's Bonds

1930 July High	1930 July Low	1930 Last	1930 High	1930 Low	1929 High	1929 Low	Sales In July	Sales During 1930	ISSUE	Date Due	Int. %	Int. Period	Author-ized $
									NEW YORK STOCK EXCHANGE				
104	103⅜	103⅜	104½	103⅜	106½	103	94	539	Amer. Agric. Chem., 1st ref. s. f. 7½s	1941	7½	F. A.	30,000,000
98	95	98	100½	96	99¾	99¾	110	766	Amer. Cyan. deb. 5s	1942	5	A. O.	5,000,000
106¾	94⅜	106½	177	94⅜	135	95	390	3,878	Amer. I. G. Chem. conv. 5½s	1949	5½	M. N.	30,000,000
102½	101⅛	102½	102¾	101⅛	102¾	98	329	2,083	Am. Smelt & Ref. 1st. 5s. "A"	1947	5	A. O.	38,000,000
97½	96½	97	98½	90½	100	79	261	1,437	Anglo-Chilean s. f. deb. 7s	1945	7	M. N.	16,500,000
103	102½	102½	103	100	103½	99¾	79	594	Atlantic Refin. deb. 5s	1937	5	J. J.	15,000,000
101½	101	101½	104½	100½	103	98¼	37	253	By-Prod. Coke 1st 5½s "A"	1945	5½	M. N.	8,000,000
102½	102¼	102½	102½	97½	103	96½	6	179	Corn Prod. Refin. 1st s. f. 5s	1934	5	M. N.	10,000,000
84½	76	83	87½	74	104	76	533	2,544	Lautaro Nitrate conv. 6s	1954	6	J. J.	
100	97½	99¾	100½	97½	100½	96	155	1,738	Pure Oil s. f. 5½% notes	1937	5½	F. A.	20,000,000
98½	97½	98½	104	97¼	98⅞	90	62	503	Solvay Am. Invest. 5s	1942	5	M. S.	
104½	103	104½	104½	100	103½	100	517	3,594	Standard Oil, N. J. deb. 5s	1946	5	F. A.	120,000,000
99½	98½	99	104½	98	100	91¾	574	2,684	Standard Oil, N. Y. deb. 4½s	1951	4½	J. D.	50,000,000
102½	100⅛	101	102½	97½	110	88	71	680	Tenn. Copp. & Chem. deb. 6s. "B"	1944	6	M. S.	5,000,000
									NEW YORK CURB				
103⅞	102½	...	103⅞	101½	103½	99¾	149,000	609,683	Aluminum Co., s. f. deb. 5s	1952	5	M. S.	60,000,000
100	98½	99	100	97½	98⅞	97⅜	273,000	712,500	Aluminum Ltd., 5s	1948	5	J. J.	20,000,000
93	90	93	100½	83½	125	99	10,000	22,129	Amer. Solv. & Chem. 6½s	1936	6½	M. S.	2,200,000
68	68	68	90	68	...	...	4,000	59,138	General Ind. Alc., 6½s	1944	6½	M. N.	2,500,000
69	67½	67½	80	57	95	60	42,000	97,138	General Rayon 6s. "A"	1948	6	J. D.	5,400,000
102½	100	102½	103	99½	101½	97¼	132,000	500,384	Gulf Oil, 5s	1937	5	J. D.	35,000,000
103½	100	102½	103¾	100	...	...	121,000	516,342	Sinking Fund deb. 5s	1947	5	F. A.	35,000,000
100½	98½	100½	100½	95½	100½	93	174,000	282,631	Koppers G. & C. deb, 5s	1947	5	J. D.	25,000,000
96½	94⅜	96	96½	90⅜	94¾	88½	237,000	483,447	Shawinigan W. & P. 4½s	1967	4½	A. O.	200,000,000
95⅞	94⅜	95⅞	95⅞	90	...	...	51,000	157,150	4½s., series "B"	1968	4½	M. N.	25,000,000
100½	98	98½	107	97	...	...	46,000	78,185	Silica Gel Corp. 6½s	1932	6½	A. O.	1,700,000
100⅞	100½	100⅞	100⅞	79½	102	97½	167,000	463,804	Swift & Co., 5s	1944	5	J. J.	50,000,000
102⅜	100½	101¼	103½	100½	104	98	23,000	60,123	Westvaco Chlorine Prod. 5½s	1937	5½	M. S.	2,500,000

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The Trend of Prices

Further Declines Recorded in Industrial Activity

Acetic Acid and Acetates Reduced—Copper at Lowest Figure for 28 Years. Anhydrous Ammonia and Calcium Chloride have Record Months—Downward Trend of Commodity Prices Continues.

The outstanding price changes in the chemical field during July were in the acetic acid and copper groups. The struggle between the natural and synthetic manufacturers of acetic acid assumed a much keener aspect when the producers of acetate of lime announced an additional reduction of almost a half a cent a pound. With copper down to a low level for over a quarter of a century, it was to be expected that some weakness in the copper salts would manifest itself despite a very satisfactory agricultural season for copper sulfate. Almost without exception, chemical shipments were but of a very ordinary routine nature. The few exceptions were seasonal items, such as calcium chloride and anhydrous ammonia, both of which were favored by a nation-wide heat wave of record proportion. The chemical price structure has shown a remarkable resistance in the face of a pronounced manufacturing recession. Curtailment in the rayon field has affected the alkali industry; solvents are experiencing a slackening of activity in both rayon and plastics. Producers of tanning materials, shellac, rosin, vegetable and fish oils are reporting a return of "Summer dullness", phraseology the trade thought to be extinct in the heydays of July 1929.

Advanced	July	June
Arsenic, red	.09¾	.08¾
Corn oil	.07	.06¾

Declined	July	June
Acid, acetic, 28%	$3.11	$3.34
Acid, Benzoic	.42	.44
" Tartaric, pow.	.35	.35½
Butyl Acetate	.175	.181
Calcium acetate	3.00	3.45
Copper	.11	.12
Copper carbonate 18-20%	.08½	.10
Copper sulfate	4.25	4.75
Ethyl acetate	.097	.11
Lead acetate, white	.12	.13
Pot. chlorate	.08	.08½
Shellac, T. N.	.23	.25
Sodium chlorate	.05¾	.06½
Tin, crystals	.27½	.28
" tetrachloride	.20¾	.22¼
Red oil, tank	.08¼	.08¼

Turning to business generally, July witnessed a further decline over June. Commodity prices continued to go lower, with wheat at the lowest price since 1914 and cotton at the lowest since 1916. Automobile production was reported at the lowest ebb for several years. Unemployment figures were still lower, augmented by the numerous vacation periods in the manufacturing centers. Declines of more than seasonal magnitude were reported in the steel ingot, refined copper, and pig iron production. Some degree of encouragement is to be noted however in the more prevalent number of opinions being expressed by business leaders that the fall will witness a decided upward swing in industrial activity. Meanwhile the barometers for measuring the pulse of business, such as carloadings, stock averages, bank clearings and indices of production still remain stationary or are pointing to lower levels. It is not to be expected that August will show any improvement over July.

The stock market during the month recovered about 22% of the loss recorded in the decline of the previous month but trading was done in small volume and dominated mainly by professionals. The trend of prices, broadly speaking, was generally upward, checked at times by reactions. The month-end, however, witnessed the most violent of the several reactions followed by only a moderate recovery.

Retail trade according to the Federal Reserve Board's Survey has shown a 5 per cent decrease during the first six months of this year compared with the same period a year ago, which is, indeed, a rather encouraging report, when comparison is made with sales in the raw commodity fields.

The Board's monthly index of industrial production reported a decline of 2 per cent for June below May and 25 per cent below the corresponding month in 1929, while freight carloadings witnessed a decline of 4 per cent for June below the previous month and 14 per cent below June a year ago.

Some improvement in building activity has manifested itself. Contracts on public works and utilities for the first six months of this year are the largest on record for the first half of any year, and 40 per cent more than the first half of 1929, but residential construction is 47 per cent below last year. Total construction contracts awarded during June in 37 Eastern States amounted to $600,573,400, according to statistics compiled by the F. W. Dodge Corp., an increase of 10 per cent over the previous month.

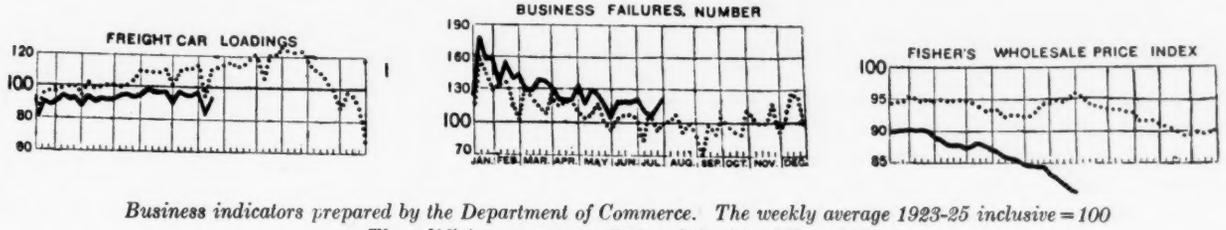
The rediscount rate at New York remained unchanged at 2½ per cent. Commercial paper was reduced slightly to a new level of 3 @ 3½ per cent, a figure just half of the rate existing a year ago.

The agricultural situation remains in the same unsettled condition, with the buying power of rural communities seriously impaired. The price of wheat in Chicago—September option was 85⅝c a bushel compared with $1.47½ a year ago, a decline of 61⅞c. Rye shows a loss of 60c, corn 19⅛c and oats 15¼c.

Indices of Business

	Latest avail. mo.	Previous month	Year Ago
Automobile Production	335,475	417,406	545,932
†Brokers Loans	3,727	4,747	7,071
‡Building Contracts	600,573	457,416	525,891
Car Loadings, July 19	928,256	915,985	1,078,695
Commercial paper	527	541	274
Factory pay rolls	94.1	96.7	111.2
*Mail order sales	44,655	55,464	53,309
Number of Failures Dun	2,026	2,179	1,767
*Merchandise Exports	299,000	322,000	393,421
*Merchandise Imports	250,000	285,000	353,409
*Furnaces in Blast	50.6	56.6	68.6
U. S. Steel unfinished orders	3,968	4,059	4,266

*000 omitted. †000,000 omitted ‡37 states.



Business indicators prepared by the Department of Commerce. The weekly average 1923-25 inclusive = 100
The solid line represents 1930 and the dotted line 1929

Prices Current

Heavy Chemicals, Coaltar Products, Dye-and-Tanstuffs, Colors and Pigments, Fillers and Sizes, Fertilizer and Insecticide Materials, Naval Stores, Fatty Oils, etc.

Chemical prices quoted are of American manufacturers for spot New York, immediate shipment, unless otherwise specified. Products sold f. o. b. works are specified as such. Imported chemicals are so designated. Resale stocks when a market factor are quoted in addition to makers' prices and indicated "second hands."

Oils are quoted spot New York, ex-dock. Quotations f.o.b. mills, or for spot goods at the Pacific Coast are so designated.

Raw materials are quoted New York, f. o. b., or ex-dock. Materials sold f. o. b. works or delivered are so designated.

The current range is not "bid and asked," but are prices from different sellers, based on varying grades or quantities or both. Containers named are the original packages most commonly used.

Purchasing Power of the Dollar: 1926 Average—$1.00 - 1929 Average $1.039 - Jan. 1929 $1.026 - July 1930 $1.191

Acetone — No improvement has been noted in the demand in the past month, but prices continue to be rather closely held in view of the unfavorable market conditions. Announcement was made during the month that rayon production was down to 50% of the production schedules of 1929 and the solvent industry continues to be extremely poor. The one bright spot is the fact that stocks in the hands of consumers are but very small and even a slight increase in business activity will reflect almost immediately in the demand for material. With the building industry already showing definite signs of revival demand for acetylene is increasing and some improvement for acetone in this direction is being felt by producers.

Acid Acetic — With a decrease in acetate of lime prices to a $3 level, a further scaling down of acetic acid prices has resulted. Manufacturers have reduced prices anywhere from 23c to 69c per lb., bringing 28% to $3.11 for carlots in bbl.; 56% to $5.85 and glacial to $11.01. The keenest kind of competition continues to exist between the synthetic and natural products. Acetate of lime stocks continue to be excessive. While production for first five months in 1929 was ten million pounds less than 1929, consumption dropped over thirty million pounds. Calcium acetate producers are resisting any further efforts to reduce prices. Slight increase in demand for the acid is noticeable from the textile trades in Paterson and New England.

Acid Benzoic — A reduction of 2c a lb. was announced by large producers early in the month bringing the present price down to 42 @ 45c a lb. depending upon quality.

Acid Chromic — The competitive condition has abated slightly, due to the placement of most of the large mid-year contracts with the automobile companies. Price varies between 16c and 18c, depending upon quantity and delivery point.

Acid Citric — Seasonal demand is fairly good and for the time being, imported and domestic are not in open competition against each other, at least, not to the extent that prevailed a few months ago.

1929 High	1929 Low	1928 High	1928 Low		Current Market	1930 High	1930 Low
.21	.18½	.26	.18½	Acetaldehyde, drs 1c-1 wks...lb.	.18½	.21	.21	.18½
.31	.27			Acetaldol, 50 gal dr.....lb.	.27	.31	.31	.27
				Acetamide.....lb.	1.20	1.35	1.35	1.20
.24	.21	.24	.23	Acetanilid, tech, 150 lb bbl...lb.	.21	.23	.23	.21
				Acetic Anhydride, 92-95%, 100 lb cbys.....lb.	.25	.28	.29	.25
.35	.28	.35	.29	Acetin, tech drums.....lb.	.30	.32	.32	.30
.32	.30	.....	.....	Acetone.....lb.	.11	.12	.12	.11
.16	.11	.15	.13	Acetone Oil, bbls NY.....gal.	1.15	1.25	1.25	1.15
1.25	1.15	1.75	1.65	Acetyl Chloride, 100 lb cby...lb.	.55	.68	.68	.55
.68	.45	.45	.42	Acetylene Tetrachloride (see tetrachlorethane).....				
				Acids				
				Acid Acetic, 28% 400 lb bbls c-1 wks.....100 lb.	.....	3.11	3.88	3.11
3.88	3.88	3.88	3.38	Glacial, bbl c-1 wk.....100 lb.	.....	11.01	13.68	11.01
13.68	13.68	13.68	11.92	Glacial, tanks.....	.....	10.76	13.43	10.76
				Anthranilic, refd, bbls.....lb.	.98	1.00	1.00	.98
1.00	.98	1.00	.98	Technical, bbls.....lb.	.....	.80	.80	.80
.80	.80	.80	.80	Battery, cbys.....100 lb.	1.60	2.25	2.25	1.60
2.25	1.60	2.25	1.60	Benzoic, tech, 100 lb bbls....lb.	.43	.45	.53	.45
.60	.51	.60	.57	Boric, crys. powd, 250 lb bbls.....lb.	.06½	.07½	.07½	.06½
.07½	.05½	.11	.08½	Broenner's, bbls.....lb.	.....	1.25	1.25	1.25
1.25	1.25	1.25	1.25	Butyric, 100% basis cbys.....lb	.85	.90	.90	.85
.90	.85	.90	.85	Camphoric.....lb.	.....	5.25	5.25	5.25
5.25	4.85	4.85	4.85	Chlorosulfonic, 1500 lb drums wks.....lb.	.04½	.05½	.05½	.04½
.05½	.04½	.16	.15	Chromic, 99%, drs extra.....lb.	.16	.18	.19	.16
.23	.17½	.30	.25	Chromotropic, 300 lb bbls....lb.	1.00	1.06	1.06	1.00
1.06	1.00	1.06	1.00	Citric, USP, crystals, 230 lb bbls.....lb.	.46	.59	.59	.46
.70	.46	.44½	.59	Cleve's, 250 lb bbls.....lb.	.52	.54	.54	.52
.59	.52	.97	.95	Cresylic, 95%, dark drs NY..gal.	.55	.60	.70	.55
.54	.60	.70	.68	97-99%, pale drs NY.....gal.	.60	.70	.77	.60
.77	.72	.72	.72	Formic, tech 90%, 140 lb cby.....lb.	.10½	.12	.12	.10½
.12	.10	.12	.11	Gallic, tech, bbls.....lb.	.50	.55	.55	.50
.12	.50	.55	.50	USP, bbls.....lb.	.....	.74	.74	.74
.55	.74	.74	.74	Gamma, 225 lb bbls wks.....lb.	.77	.80	.80	.77
.80	.74	1.06	1.00	H, 225 lb bbls wks.....lb.	.65	.70	.70	.65
.99	.80	.63	.57	Hydriodic, USP, 10% soln cby lb.	.....	.67	.67	.67
.72	.67	.67	.67	Hydrobromic, 48%, coml, 155 lb cbys wks.....lb.	.45	.48	.48	.45
.67				Hydrochloric, CP, see Acid Muriatic.....				
.48	.45	.48	.45	Hydrocyanic, cylinders wks...lb.	.80	.90	.90	.80
.....	.....			Hydrofluoric, 30%, 400 lb bbls wks.....lb.	.....	.06	.06	.06
.90	.80	.90	.80	Hydrofluosilicic, 35%, 400 lb bbls wks.....lb.	.....	.11	.11	.11
.06	.06	.06	.06	Hypophosphorous, 30%, USP, demijohns.....lb.	.....	.85	.85	.85
.11	.11	.11	.11	Lactic, 22%, dark, 500 lb bbls lb.	.04	.04½	.05	.04
.85	.85	.85	.85	44%, light, 500 lb bbls.....lb.	.11½	.12	.12	.11
.05½	.04½	.06	.04½	Laurent's, 250 lb bbls.....lb.	.40	.42	.42	.40
.12½	.11	.13½	.12	Malic, powd., kegs.....lb.	.45	.60	.60	.45
.42	.40	.54	.52	Metanilic, 250 lb bbls.....lb.	.60	.65	.65	.60
.60	.48	.60	.48	Mixed Sulfuric-Nitric.....				
.65	.60	.65	.60	tanks wks.....N unit	.07	.07½	.07½	.07
				tanks wks.....S unit	.008	.01	.01	.008
.07½	.07	.08	.07½	Monochloroacetic, tech bbl..lb.	.18	.21	.21	.18
.01	.008	.01½	.01	Monosulfonic, bbls.....lb.	1.65	1.70	1.70	1.65
.21	.18	.21	.18	Muriatic, 18 deg, 120 lb cbys c-1 wks.....100 lb.	.....	1.35	1.35	1.35
1.70	1.65	.65	.65	tanks, wks. 100 lb.		1.00	1.00	1.00
				20 degrees, cbys wks...100 lb.	.....	1.45	.....	1.45
1.40	1.35	1.40	1.35	N & W, 250 lb bbls.....	.85	.95	.95	.85
1.00	1.00			Naphthionic, tech, 250 lb.....	.....	Nom.	Nom.	.....
....	1.45	1.80	1.70	Nitric, 36 deg, 135 lb cbys c-wks.....100 lb.	.....	5.00	5.00	5.00
.95	.85	.95	.85	40 deg, 135 lb cbys, c-1 wks.....100 lb.	.....	6.00	6.00	6.00
.59	.55	.59	.55	Oxalic, 300 lb bbls wks NY...lb.	.11	.11½	.11½	.11
5.00	5.00	5.00	5.00	Phosphoric 50%, U. S. P.....lb.	.....	.14	.14	.14
6.00	6.00	6 00	6.00	Syrupy, USP, 70 lb drs....lb.	.....	.14	)	.14
.11½	.11	.11½	.10½	Commercial, tanks,.....Unit.	.....	.80	.80	.80
.14	.08	.08½	.08	Picramic, 300 lb bbls.....lb.	.65	.70	.70	.65
.16	.14	.16	.16	Picric, kegs.....lb.	30	.50	.50	.30
.....	.....			Pyrogallic, crystals.....				
.70	.65	.50	.50	.....lb.	1.50	1.60	1.60	1.30
.50	.30	.50	.40	Salicylic, tech, 125 lb bbl.....lb.	.33	.37	.37	.33
				Sulfanilic, 250 lb bbls.....lb.	.15	.16	.16	.15
1.40	.86	.86	.86	Sulfuric, 66 deg, 180 lb cbys 1c-1 wks.....100 lb.	1.60	1.95	1.95	1.60
.42	.33	.32	.27	tanks, wks. ton		15.00	15.50	15.00
.16	.15	.16	.15	1500 lb dr wks.....100 lb.	1.50	1.65	1.65	1.50
				60°, 1500 lb dr wks....100 lb.	1.27½	1.42½	1.42½	1.27½
1.95	1.60	1.95	1.60	Oleum, 20%, 1500 lb. drs 1c-1 wks ....ton	.....	18.50	18.50	18.50
15.50	15.50							
1.65	1.50	1.37½	1.20					
1.42½	1.27½	1.12½	1.12½					
18.50	18.50	18.50	18.50					

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Prices Current and Comment

Purchasing Power of the Dollar: 1926 Average—$1.00 - 1929 Average $1.039 - Jan. 1929 $1.026 - July 1930 $1.191

Acid Formic — Current quotations were adhered to during the past month in spite of some slackening in the demand. Imports for the first five months amounted to only 285,517 lbs., as against 848,574 lbs., for the same period a year ago.

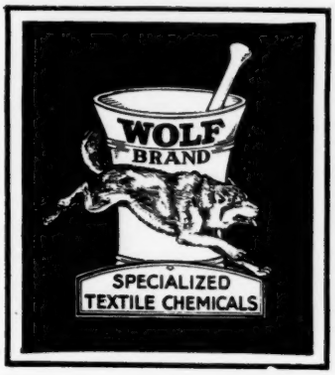
Acid Oxalic — Seasonal hot weather has tended to reduce production schedules. With demand from the anthracite coal industry but a month or two off, price increases may be expected shortly. May imports totalled 57,073 lbs., originating from Germany. Present market is strong with a fair demand at firm prices.

Acid Sulfuric — A gradual decline has been noted in the shipments of all mineral acids in the past few months, but the market is steady and prices are firm at quoted levels. Shipments to the iron and steel industries have shown a decided drop, but refiners of petroleum are taking acid in fair sized quantity. Demand from the fertilizer industry continues to gain. Production of sulfuric acid by fertilizer manufacturers during May amounted to 189,261 tons, compared with 181,077 tons during April, and 164,058 tons during May of last year. For the first five months, production totaled 949,936 tons against 914,097 tons during the same period in 1929. Acid consumed in making fertilizers, amounted to 210,534 tons in May, compared with 201,993 tons in April, and 181,859 tons in May of 1929. The total acid consumed for fertilizer manufacture the first five months of 1930, amounted to 1,080,545 tons against 1,006,209 tons in the same period in 1929. Stocks on hand at the end of May totaled 86,003 tons, compared with 84,490 tons at the end of April and with 91,539 tons at the end of May, 1929.

Acid Tartaric — Keen competitive conditions still exist between the domestic and the imported. Domestic price was reduced ½c during the month, bringing current price to 35c for powdered and granular, and 35½c for crystal. May importations were 177,681 lbs., Italy supplying 133,589 and Germany the balance. Imports for the first four months of this year totalled 1,061,695 lbs., compared with 423,920 lb., in 1929. However, the prospective change in tariff accounted for most of this increase.

Alcohol — Conditions in this market have become more settled in the past month with less price shading although the demand has been very quiet even for this time of the year. A fair withdrawal of less carlot quantities have been moving out of warehouses, but the larger buyers have been marking time. No change has been made in the quoted prices, tanks still being held at 37c a gal., while drums are at 40c. New prices were

1929 High	1929 Low	1928 High	1928 Low		Current Market	1930 High	1930 Low
42.00	42.00	42 00	42.00	40%, 1c-1 wks net .....ton	.....	42.60	42.00	42.00
.40	.30	.40	.30	Tannic, tech, 300 lb bbls...lb.	.30	.40	.40	.30
.38½	.38	.38	.34½	Tartaric, USP, crys, powd, 300 lb. bbls.....lb	.35	.36	.38½	.35
.85	.85	.85	.85	Tobias, 250 lb bbls.....lb.	.....	.85	.85	.85
2.75	2.75	2.75	2.75	Trichloroacetic bottles.....lb.	.....	2.75	2.75	2.75
2.00	2.00	2.00	2.00	Kegs.....lb.	.....	2.00	2.00	2.00
2.25	1.00	1.25	1.00	Tungstic, bbls.....lb.	1.40	1.70	1.70	1.40
.47	.38	.55	.43	Albumen, blood, 225 lb bbls..lb.	.38	.40	.40	.38
.20	.12			dark,.....bbls., lb.	.12	.20	.20	.12
.83	.70	.84	.78	Egg, edible.....lb.	.....	.70	.75	69
.80	.70	.80	.70	Technical, 200 lb cases ..lb.	.65	.70	.73	.65
.65	.60	.65	.60	Vegetable, edible.....lb.	.60	65	.65	.60
.55	.50	.55	.50	Technical.....lb.	.50	.55	.55	.50
				Alcohol				
.17½	.17½	.20	.18½	Alcohol Butyl, Normal, 50 gal drs c-1 wks.....lb.	.17½	.18½	.18½	.17½
.18½	.17½	.19½	.18½	Drums, 1-c-1 wks.....lb.	.17½	.18½	.18½	.17½
.17½	.16½	.19	.17½	Tank cars wks.....lb.	.16½	.17½	.17½	.16½
1.67	1.67	2.25	1.75	Amyl (from pentane) drs c-1 wks.....gal.	.....	1.67	1.67	1.67
1.80	1.42	1.80	1.70	Diacetone, 50 gal drs del..gal.	1.42	1.60	1.60	1.42
2.75	2.69½	3.70	2.65	Ethyl, USP, 190 pf, 50 gal bbls.....gal.	2.63	2.75	2.75	2.63
.71	.71	.55	.50	Anhydrous, drums.....gal.	.56	.60	.71	.56
.52	.49	.52	.48½	Completely denatured, No. 1, 188 pf, 50 gal drs drums extra.....gal.	.40	.44	.51	.40
.51	.48	.50	.43	No. 5, 188 pf, 50 gal drs. drums extra.....gal.	.40	.44	50	.40
.50	.46	.46	.41	Tank, cars.....gal.	.37	.38	.48	.37
1.30	1.00	1.25	1.00	Isopropyl, ref, gal drs.....gal.	.60	1.00	1.00	.60
1.00	1.00	1.00	1.00	Propyl Normal, 50 gal dr..gal.	.....	1.00	1.00	1.00
.82	.80	.82	.80	Aldehyde Ammonia, 100 gal dr lb.	.80	.82	.82	.80
.65	.65	.65	.65	Alpha-Naphthol, crude, 300 lb bbls.....lb.	.....	.65	.65	.65
.34	.32	.37	.35	Alpha-Naphthylamine, 350 lb bbls.....lb.	.32	.34	.34	.32
3.50	3.25	3.30	3.25	Alum Ammonia, lump, 400 lb bbls, 1c-1 wks.....100 lb.	3.30	3.50	3.50	3.30
5.50	5.00	5.50	5.25	Chrome, 500 lb casks, wks .....100 lb.	5.00	5.25	5.25	5.00
3.50	3.00	3.20	3.10	Potash, lump, 400 lb casks wks.....100 lb.	3.20	3.50	3.50	3.20
3.75	3.75	3.75	3.75	Soda, ground, 400 lb bbls wks.....100 lb.	.....	3.75	3.75	3.75
24.30	24.30	26.00	24.30	Aluminum Metal, c-1 NY.100 lb.	.....	24.30	24.30	24.30
.20	.05	.40	.35	Chloride Anhydrous,.....lb.	.05	.15	.15	.05
.18	.17	.18	.17	Hydrate, 96%, light, 90 lb bbls.....lb.	.17	.18	.18	.17
.26	.25	.24	.18	Stearate, 100 lb bbls.....lb.	.24½	.25½	.26	.24½
2.05	1.95	1.75	1.75	Sulfate, Iron, free, bags c-1 wks.....100 lb.	1.95	2.05	2.05	1.95
1.40	1.40	1.40	1.40	Coml, bags c-1 wks..100 lb.	.....	1.40	1.40	1.40
1.15	1.15	1.15	1.15	Aminoazobenzene, 110 lb kegs lb.	.....	1.15	1.15	1.15
				Ammonium				
				Ammonia anhydrous Com. tanks	.....	.05½	.05½	.05½
.14½	.14	.14	.13½	Ammonia, anhyd, 100 lb cyl..lb.	.15½	.15½	.15½	.15½
.03½	.03½	.03	.03	Water, 26°, 800 lb dr del...lb.	.....	.03½	.03½	.03½
				Ammonia, aqua 26° tanks....	.02½	.02½	.02½	.02½
				Acetate.....lb.	.28	.39	.39	.28
6.50	5.15			Bicarbonate, bbls., f.o.b. plant .....100 lb.	.....	5.15	5.15	5.15
.22	.21	.22	.21	Bifluoride, 300 lb bbls.....lb.	.21	.22	.22	.21
.12	.09	.09	.08½	Carbonate, tech, 500 lb cs..lb.	.09	.12	.12	.09
5.15	4.45	5.15	4.45	Chloride, white, 100 lb. bbls wks.....100 lb.	4.45	5.15	5.15	4.45
5.75	5.25	5.75	5.25	Gray, 250 lb bbls wks....lb.	5.25	5.75	5.75	5.25
.11½	.11	.11½	.11	Lump, 500 lb cks spot...lb.	.11	.11½	.11½	.11
.16	.15	.16	.15	Lactate, 500 lb bbls.....lb.	.15	.16	.16	.15
.10	.06	.10	.06	Nitrate, tech, casks.....lb.	.06	.10	.10	.06
.34	.26	.38	.27½	Persulfate, 112 lb kegs.....lb.	.26	.30	.30	.26
.13	.12½	.18	.18	Phosphate, tech, powd, 325 lb bbls.....lb.	.11½	.12	.13	.11½
2.40	2.05	2.90	2.20	Sulfate, bulk c-1.....100 lb.	.....	1.85	2.10	1.85
2.45	2.05	3.00	2.50	Southern points.....100 lb.	.....	2.00	2.10	2.00
60.85	52.40	60.85	60.85	Nitrate, 26% nitrogen 31.6% ammonia imported bags c. i. f.....ton	.....	57.60	57.60	57.60
.48	.36	.60	.55	Sulfocyanide, kegs.....lb.	.36	.48	.48	.36
1.70	1.60	2.25	1.72	Amyl Acetate, (from pentane) drs..... lb.	.222	.236	.236	.222
.24	.23	.....	.....	Tech., drs.....lb.	.23	.24	.24	.23
				Alcohol, see Fusel Oil.....				
				Furoate, 1 lb tins.....lb.		5.00	5.00	5.00
.16½	.15	.16½	.15½	Aniline Oil, 960 lb drs.....lb.	.15	.16	.16	.15
.37	.34	.48	.41	Annatto, fine.....lb.	.34	.37	.37	.34
.90	.80	1.00	.90	Anthraquinone, sublimed, 125 lb bbls.....lb.	.50	.55	.90	.50
.10	.08½	.12	.09½	Antimony, metal slabs, ton lots .....lb.	.06¾	.07	.09½	.07
.10	.09	.12	.10	Needle, powd, 100 lb cs....lb.	.....	.08	.09½	.08
.18	.13	.18	.17	Chloride, soln (butter of) cbys.....lb.	.13	.17	.17	.13
.10	.08½	.12	.09½	Oxide, 500 lb bbls.....lb.	.08½	.08½	.08½	.07½
.26	.24	.....	.....	Salt, 66%, tins.....lb.	.....	.24	.24	.24
.20	.16	.20	.16	Sulfuret, golden, bbls.....lb.	.16	.20	.20	.16
.42	.38	.42	.38	Vermilion, bbls.....lb.	.38	.42	.42	.38
.19	.17	.19	.17	Archil, conc, 600 lb bbls.....lb.	.17	.19	.19	.17
.14	.12	.14	.12	Double, 600 lb bbls.....lb.	.12	.14	.14	.12
.16	.12	.16	.15	Triple, 600 lb bbls.....lb.	.12	.14	.14	.12
.18½	.18½	.16	.15	Argols, 80%, casks.....lb.	.....	.18½	.18½	.18½
.08	.08	.08	.08	Crude, 30%, casks.....lb.	.08	.08	.08	.08
.....	.....			Aroclors, wks.....lb.	.20	.40	.40	.20



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Prices Current and Comment

Purchasing Power of the Dollar: 1926 Average—$1.00 - 1929 Average $1.039 - Jan. 1929 $1.026 - July 1930 $1.191

announced for anhydrous denatured as follows: tanks, 50c per gal.; drums in carlots, 54c and less carload 58c.

Alum — The fur trade has been fairly active in their demand for the ammonia and potash alums. Potash chrome alum has shown a falling off in shipments.

Aluminum Sulfate — Demand from the textile centers have been rather spotty, but no curtailment for water purification is noticeable. No revision in quoted prices has been reported. May exports totaled 3,847,167 lbs., against 3,787,892 lbs., in April and 4,100,676 lbs., in May, 1929. The total for the first five months was 19,229,261 lbs., compared with 20,416,-652 lbs. in 1929.

Ammonia — With a nation-wide heat wave, anhydrous was in large demand and approached very nearly the records for last year. Prices were very firm. Aqua is now in fairly good demand, due to increased activity in the dyeing centers of Paterson and New England.

Ammonium Sulfate — Announcement of new prices for the coming season has been delayed, and pending their release the market shows no marked change from last month. The effect of the recent cut in the tariff has not as yet asserted itself but it is expected that domestic producers will meet any price reductions. For the present, shipments are virtually at a standstill.

Antimony — Demand was poor for the metal during the past month and prices moved in the narrow range of 6⅞c @ 7c per lb., duty paid, f. o. b., N. Y. City.

Arsenic Red — An increase of ⅝c a lb. was initiated by producers. Moderate increase in shipments from abroad were readily absorbed into the insecticide field.

Bleaching Powder — Prices have remained stationary for some time on this commodity. Requirements of the textile trade has been only fair. Imports for the month of April were 267,204 lbs.

Blood — Limited supplies aided in maintaining the firm status of this market. The spot price was held at $3.25 per unit while importers were offering foreign material for August delivery at $3.50 per unit figure. The Chicago market showed a slight drop of 10c a unit to $3.50, f. o. b., that shipping point.

Borax — Conditions in this market have continued unchanged during the past month with prices firm in spite of some seasonal slackening in shipments.

Butyl Acetate — This market has continued its definitely downward trend with another price reduction. The entire solvent market is running at very low levels and with the acetic acid market specially soft, improvement seems far distant. Prices are now on the basis of

1929 High	1929 Low	1928 High	1928 Low		Current Market	1930 High	1930 Low
.11	.09	.11	.10½	Arsenic, Red. 224 lb kegs, cs..lb.	.09½	.10	.11	.08½
.04½	.04	.04	.03½	White, 112 lb kegs.....lb.	.04	.04½	.04½	.04
15.00	4.75	14.75	14.75	Asbestine, c-l wks.....ton	.....	15.00	15.00	15.00
				Barium				
60.00	57.00	57.00	47.00	Barium Carbonate, 200 lb bags wks.....ton	58.00	60.00	60.00	58.00
.15	.14	.12½	.12	Chlorate, 112 lb kegs NY..lb.	.14	.15	.15	.14
69.00	63.00	65.00	54.00	Chloride, 600 lb bbl wks...ton	63.00	69.00	69.00	63.00
.13	.12	.13½	.13	Dioxide, 88%, 690 lb drs...lb.	.12	.13	.13	.12
.05½	.04½	.04½	.04½	Hydrate, 500 lb bbls.....lb.	.04½	.05½	.05½	.04½
.08½	.08	.08	.07½	Nitrate, 700 lb casks.....lb.	.08	.08½	.08½	.08
24.00	23.00	24.00	23.00	Barytes, Floated, 350 lb bbls wks.....ton	23.00	24.00	24.00	23.00
8.00	7.00	8.00	5.00	Bauxite, bulk, mines.....ton	5.00	8.00	8.00	5.00
.37	.34	.38	.36	Beeswax, Yellow, crude bags..lb.	.30	.31	.34	.30
.42	.39	.43	.41	Refined, cases.....lb.	.....	.37	.38	.37
.53	.51	.58	.56	White, cases.....lb.	.36	.50	.53	.36
.65	.60	.70	.65	Benzaldehyde, technical, 945 lb drums wks.....lb.	.60	.65	.65	.60
				Benzene				
.23	.23	23	.21	Benzene, 90%, Industrial, 8000 gal tanks wks.....gal.	.....	.21	.22	.21
.23	.23	23	.21	Ind. Pure, tanks works....gal.	.....	.21	.22	.21
.74	.70	.74	.70	Benzidine Base, dry, 250 lb bbls.....lb.	.65	.67	.74	.65
1.00	1.00	1.00	1.00	Benzoyl, Chloride, 500 lb drs.lb.	.....	1.00	1.00	1.00
.25	.25	.25	.25	Benzyl, Chloride, tech drs....lb.	.....	.25	.25	.25
.26	.22	.26	.24	Beta-Naphthol, 250 lb bbl wk.lb.	.22	.24	.24	.22
1.35	1.35	1.35	1.35	Naphthylamine, sublimed, 200 lb bbls.....lb.	.....	1.35	1.35	1.35
.68	.60	.65	.63	Tech, 200 lb bbls.....lb.	.53	.65	.65	.53
90.00	75.00	90.00	80.00	Blanc Fixe, 400 lb bbls wks..ton	75.00	90.00	90.00	75.00
				Bleaching Powder				
2.25	2.00	2.25	2.25	Bleaching Powder, 300 lb drs c-l wks contract.....100 lb.	2.00	2.35	2.35	2.00
4.60	3.90	5.25	4.65	Blood, Dried, fob, NY.....Unit	.....	3.25	3.90	3.25
5.00	4.40	5.35	4.75	Chicago.....Unit	.....	3.75	4.50	3.75
4.70	4.25	5.05	4.50	S. American shipt.....Unit	.....	3.50	4.10	3.50
.35	.32	.35	.31	Blues, Bronze Chinese Milori Prussian Soluble.....lb.	.....	.35	.35	.35
42.00	39.00	30.00	29.00	Bone, raw, Chicago.....ton	.....	39.00	39.00	39.00
.07	.06	.07	.06	Bone, Ash, 100 lb kegs.....lb.	.06	.07	.07	.06
.08½	.08½	.08½	.08½	Black, 200 lb bbls.....lb.	.....	.08½	.08½	.08½
35.00	30.00	37.00	31.00	Meal, 3% & 50%, Imp....ton	.....	31.00	31.00	31.00
.03½	.02½	.05	.2½	Borax, bags.....lb.	.02½	.03½	.03½	02½
.14	.10½	.12	.10½	Bordeaux, Mixture, 16% pwd..lb.	.12	.14	.14	.12
.14	.10	.10	.08	Paste, bbls.....lb.	.12	.14	.14	.12
28.00	26.00	28.00	26.00	Brazilwood, sticks, shpmt....lb.	26.00	28.00	28.00	26.00
				Bromine, cases.....lb.	.38	.45	.47	.38
1.20	.60	1.20	.60	Bronze, Aluminum, powd blk.lb.	.60	1.20	1.20	.60
1.25	.55	1.25	.55	Gold bulk.....lb.	.55	1.25	1.25	.55
.195	.184	1.60	1.40	Butyl, Acetate, normal drs.....lb.	.181	.187	.20	.181
.186	.181	1.55	1.35	Tank, wks.....lb.	.....	.175	.186	.175
.70	.34	.70	.70	Aldehyde, 50 gal drs wks...lb.	.34	.44	.44	.34
.....	.....			Carbitol s ee Diethylene Glycol Mono (Butyl Ether).....	.....	.....	.....	.....
				Cellosolve (see Ethylene glycol mono butyl ether).....				
.50	.50			Furoate, tech., 50 gal. dr., lb.	.....	.50	.50	.50
.36	.25	.36	.34	Propionate, drs.....lb.	.25	.27	.27	.25
.60	.25	.60	.60	Stearate, 50 gal drs.....lb.	.25	.30	.30	.25
.60	.57	.60	.57	Tartrate, drs.....lb.	.57	.60	.60	.57
1.75	.75	2.00	1.35	Cadmium, Sulfide, boxes.....lb.	.90	1.40	1.75	.90
				Calcium				
4.50	4.50	4.50	3.50	Calcium, Acetate, 150 lb bags c-l.....100 lb.	.....	3.00	4.50	3.00
.09	.07	.09	.06	Arsenate, 100 lb bbls c-l wks.....lb.	.07	.09	.09	.07
.06	.05	.06	.05	Carbide, drs.....lb.	.05	.06	.06	.05
1.00	1.00	1.00	1.00	Carbonate, tech, 100 lb bags c-l.....lb.	1.00	1.00	1.00	1.00
25.00	22.75	27.00	25.00	Chloride, Flake, 375 lb drs c-l wks.....ton	.....	22.75	22.75	22.75
20.00	20.00	23.00	20.00	Solid, 650 lb drs c-l fob wks .....ton	20.00	20.00	20.00	20.00
52.00	42.00	52.00	52.00	Nitrate, 100 lb bags.....ton	42.00	43.00	43.00	42.00
1.25	1.25	.....	.....	Peroxide, 100 lb. drs.....lb.	.....	1.25	1.25	1.25
.08	.07	.08	.07	Phosphate, tech, 450 lb bbls lb.	.08	.08½	.08½	.08
.26	.25			Stearate, 100 lb bbls.....lb.	.25	.26	.26	.25
88.15	82.15			Calurea, bags S. points. c.i.f. ton	.....	88.65	88.65	88.65
.18	.18	.18	.18	Camwood, Bark, ground bbls..lb.	.....	.18	.18	.18
.24	.22	.28	.22	Candelilla Wax, bags.....lb.	.17	.18	.20	.17
.....	.....			Carbitol, (See Diethylene Glycol Mono Ethyl Ether).....	.....	.....	.....	.....
.15	.08	.15	.08	Carbon, Decolorizing, 40 lb bags c-l.....lb.	.08	.15	.15	.08
.12	.12	.12	12	Black, 100-300 lb cases lc-l NY.....lb.	.....	.12	.12	.12
.06	.05½	.06	.05½	Bisulfide, 500 lb drs lc-l NY.....lb.	.05½	.06	.06	.05½
.06	.06	.06	.06	Dioxide, Liq. 20-25 lb cyl...lb.	.....	.06	.06	.06
.07½	.06½	.07½	07	Tetrachloride, 1400 lb drs delivered.....lb.	.06½	.07	.07	.06½
.43	.35	.58	.45	Carnauba Wax, Flor, bags....lb.	.32	.34	.37	.32
.40	.33	.60	.40	No. 1 Yellow, bags.....lb.	.29	.31	.33	.29
.32	.28	.38	.34	No. 2 N Country, bags.....lb.	.25	.27	.27	.25
.36	.31	.56	.38	No. 2 Regular, bags.....lb.	.26	.29	.30	.26
.25	.24	.32	.25	No. 3 N. C.....lb.	.20	.23	.23	.20
.26	.24	.32	25½	No. 3 Chalky.....lb.	.20	.23	.23	.20
.17	.15	.18½	.14½	Casein, Standard, ground.....lb.	.13½	.15	.15½	.13½

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.175 in tanks and .181 @ .187 in drums in a rather unsettled market.

Calcium Acetate — Another drastic reduction was made in this commodity during the past month in an effort to move accumulating stocks and to permit the manufacturers of the natural acid to compete more successfully with synthetic producers. The material is now on a $3.00 per 100 lbs., basis. Unconfirmed rumors have mentioned the possibility of further reduction, but producers were maintaining rigidly to the new price schedule. Production of acetate of lime for the first five months amounted to 50,655,000 lbs., as against 60,566,000 lbs., in the same period in 1929. However, shipments over the first five months of 1930 amounted to only 30,271,000 lbs., while in the same period in 1929 the total was 59,678,000 lbs. Despite several drastic reductions in the past few months acetate of lime producers have not been able to reduce to any noticeable extent the accumulated stocks.

Calcium Arsenate — Continues in good demand from the South and Southwest despite the exceptionally dry weather of the past month. Prices are firm and unchanged.

Calcium Chloride — Shipments to date have surpassed all previous records. The exceptional dry hot weather of July speeded up deliveries to even larger extent than prevailed in June. With dry weather in August, 1930 should be the banner year in the history of this commodity. Progress in the adoption of calcium chloride for bituminous coal treating is making satisfactory headway. Refrigerating demand has been heavy. Prices remain unchanged.

Exports in the first five months of 1930 were nearly double the quantity shipped during the same period of 1929, (12,275 compared to 6,768 short tons.) The total exported in 1929 was 15,425 tons. The increase in foreign sales of this chemical is due to its expanding market for treating roads.

Casein — The market appeared to pass unnoticed for the time being at least, the change in tariff rate. Dullness characterized the dealings in this commodity during the month. Some slight improvement was in evidence, but, generally, trade was but routine. Quoted prices remained stationary, but actual sales were being reported at prices slightly lower. With the paper industry still operating at reduced schedules no immediate improvement is looked for in the near future. Imported stocks are reported as being specially large at this time.

1929 High	1929 Low	1928 High	1928 Low		Current Market	1930 High	1930 Low
				Cellosolve (see Ethylene glycol mono ethyl ether)			
				Acetate (see Ethylene glycol mono ethyl ether acetate)			
.30	.20	.30	.26	Celluloid, Scraps, Ivory cs....lb.	.....	.20	.20	.20
.20	.18	.20	.18	Shell, cases.....lb.	.18	.20	.20	.18
.32	.15	.32	.30	Transparent, cases.. ..... lb.	.....	.15	.15	.15
1.25	1.20	1.40	1.40	Cellulose, Acetate, 50 lb kegs .lb.	1.10	1.25	1.25	1.10
.03¾	.03	.03¾	.03	Chalk, dropped, 175 lb bbls...lb.	.03	.03¾	.03¾	.03
.03½	.02	.04½	.04½	Precip, heavy, 560 lb cks...lb.	.02	.03½	.03½	.02
.03½	0 ½	.03½	.02½	Light, 250 lb casks.....lb.	.02½	.03½	.03½	.02½
.19	.18	.19	.18	Charcoal, Hardwood, lump, bulk wks.....bu.	.18	.19	.19	.18
.06½	.06	.06½	.06	Willow, powd, 100 lb bbl wks.....lb.	.06	.06½	.06½	.06
.05	.04	.05	.04	Wood, powd, 100 lb bbls...lb.	.04	.05	.05	04
.02	.03½	.03	.02	Chestnut, clarified bbls wks,..lb.	.02½	.03	.03	.02½
.02½	.01½	02	.01½	25% tks wks.....lb.	.01¾	.02½	.02½	.01¾
.04 ⅛	.04¼	.04 ⅛	.04 ⅛	Powd, 60%, 100 lb bgs wks.lb.	.....	.04¼	.04¼	.04¼
.06	.05½	.06	.05½	Powd, decolorized bgs wks..lb.	.05½	.06	.06	.05½
9.00	8.00	9.00	8.00	China Clay, lump, blk mines.ton	8.00	9.00	9.00	8.00
.02	.01¾	.02	.01¾	Powdered, bbls.....lb.	.01¾	.02	.02	.01¾
12.00	10.00	12.00	10.00	Pulverized, bbls wks.....ton	10.00	12.00	12.00	10.00
25.00	15.00	25.00	15.00	Imported, lump, bulk.....ton	15.00	25.00	25.00	15.00
.03½	.01¾	.03½	.03	Powdered, bbls.....lb.	.01¾	.03	.03	.01¾
				Chlorine				
.08½	.07	.09	.08	Chlorine, cyls 1c-1 wks contract .....lb.	.07½	.08½	.08½	.07½
.04½	.04½	.. ..	.....	cyls, cl wks,. contract ...lb.	.....	.04½	.04½	.04½
.03	.025	.03½	.03½	Liq tank or multi-car lot cyls wks contract.....lb.	.025	.025	.025	.025
.10½	.08½	.07	.07	Chlorobenzene, Mono, 100 lb. drs 1c-1 wks.....lb.	.10	.10½	.10½	.10
.20	.16	.22	.20	Chloroform, tech, 1000 lb drs..lb.	.15	.16	.16	.15
1.35	1.00	1.35	1.00	Chloropicrin, comml cyls.....lb.	1.00	1.35	1.35	1.00
.29	.20	.29	.26	Chrome, Green, CP.....lb.	.26	.29	.29	.26
.11	.06½	.11	.06½	Commercial.....lb.	.06½	.11	.11	.06½
.18	.15	.17	.15½	Yellow.....lb.	.17	.18	.18	.17
.05¾	.04¾	.05¾	.04¾	Chromium, Acetate, 8% Chrome bbls.....lb.	.04¾	.05¾	.05¾	.04¾
.05½	.05½	.05½	.05½	20° soln, 400 lb bbls.....lb.	.....	.05½	.05½	.05½
.28	.27	.28	.27	Fluoride, powd, 400 lb bbl..lb.	.27	.28	.28	.27
.35½	.34½	.35½	.34½	Oxide, green, bbls.....lb.	.34½	.35½	.35½	.34½
10.50	10.00	9.50	9.00	Coal tar, bbls.....bbl	10.00	10.50	10.50	10.00
2.22	2.10	2.22	2.10	Cobalt Oxide, black, bags....lb.	2.10	2.22	2.22	2.10
1.01	.95	.87	.84	Cochineal, gray or black bag..lb.	.95	1.01	1.01	.95
.95	.95	.86	.86	Teneriffe silver, bags.....lb.	.....	.95	.95	.95
				Copper				
24.00	17.00	17.00	12.90	Copper, metal, electrol...100 lb.	.....	11.00	17.78	11.00
.25	.13	.17½	.16	Carbonate, 400 lb bbls.....lb.	.08½	.18½	.21½	.08½
.28	.25	.28	.28	Chloride, 250 lb bbls.....lb.	.25	.28	.28	.25
.60	.44	.50	.48	Cyanide, 100 lb drs.....lb.	.44	.45	.45	.44
.32	.16½	.17	.16½	Oxide, red, 100 lb bbls.....lb.	.24	.32	.32	.24
.19	.18	.19	.18	Sub-acetate verdigris, 400 lb bbls.....lb.	.18	.19	.19	.18
7.00	5.50	5.50	5.05	Sulfate, bbls c-1 wks...100 lb.	.....	4.25	5.50	4.25
14.00	13.00	14.00	13.00	Copperas, crys and sugar bulk c-1 wks.....ton	13.00	14.00	14.00	13.00
.42	.40	.42	.40	Cotton, Soluble, wet, 100 lb bbls.....lb.	.40	.42	.42	.40
.....	.....	.....	.....	Cottonseed, S. E. bulk c-1...ton	.....	.....	.....	.....
.....	.....	.....	.....	Meal S. E. bulk.....ton	.....	.....	.....	.....
38.00	37.50	38.00	36.00	7% Amm., bags mills...ton	37.50	38.00	38.00	37.50
.28	26½	.27½	.26	Cream Tartar, USP, 300 lb. bbls.....lb.	26½	.27	.27	.26½
.42	.40¼	.42	.40	Creosote, USP, 42 lb cbys....lb.	.40	.42	.42	.40
.19	.15	.19	.17	Oil, Grade 1 tanks.....gal.	.15	.16	.16	.15
.23	.13	.23	.21	Grade 2.....gal.	.13	.14	.14	.13
.28	.13	.28	.25	Grade 3.....gal.	.13	.14	.14	.13
.17	.14	.20	.17½	Cresol, USP, drums.....lb.	.14	.17	.17	.14
.36	.32			Crotonaldehyde, 50 gal dr....lb.	.32	.36	.36	.32
.17	.16	.17	.16	Cudbear, English.....lb.	.16	.17	.17	.16
.16	.12½	.18½	.18½	Cutch, Rangoon, 100 lb bales..lb.	.12½	.13	.13	.12½
.08½	.08	.07	.06	Borneo, Solid, 100 lb bale..lb.	.08	08½	.08½	.08
2.00	2.00	1.75	1.67½	Cyanamide, bulk c-1 wks Nitrogen unit		2.00	2.00	2.00
4.92	4.62	5.12	3.77	Dextrin, corn, 140 lb bags..100 lb.	4.42	4.72	4.82	4.42
4.87	4.57	5.07	3.72	White, 140 lb bags.....100 lb.	4.37	4.67	4.77	4.37
.09	.08	.09	.08	Potato, Yellow, 220 lb bgs..lb.	.08	.09	.09	.08
.09	.08	.09	.08	White, 220 lb bags 1c-1....lb.	.08	.09	.09	.08
.08¼	.08	.08¼	.08	Tapioca, 200 lb bags 1c-1..lb.	.08	.08¼	.08¼	.08
3.80	3.80	3.80	3.80	Diamylphthalate, drs wks...gal.	.....	3.80	3.80	3 80
3.10	2.70	2.90	2.85	Dianisidine, barrels..... lb.	.....	2.70	2.70	2 70
.26½	.26½	.28	.26½	Dibutylphthalate, wks.....lb.	.25½	.28	.28	.25½
.31½	.29½	.31½	.29½	Dibutyltartrate, 50 gal drs...lb.	.29½	.31½	.31½	.29½
.13	.05	.....	...	Dichloroethylether, 50 gal drs lb.	.....	.06	.07	.05
.65	.55	.65	.55	Dichloromethane, drs wks....lb.	.55	65	.65	.55
3.00	2.75	.25	.23	Diethylamine, 400 lb drs.....lb.	2.75	3.00	3.00	2.75
1.90	1.85	2.15	2.15	Diethylcarbonate, drs .....gal.	1.85	1.90	1.90	1.85
.60	.55	2.00	1.85	Diethylaniline, 850 lb drs.....lb.	.55	.60	.60	.55
.13	.10	.60	.55	Diethyleneglycol, drs.....lb	11	.13	.13	.10
.15	.13	.15	.10	Mono ethyl ether, drs....lb.	.....	.16	.16	.13
.30	.25	.35	.25	Mono butyl ether, drs....lb.	.28	30	.30	.28
.50	.50	.....	.....	Diethylene oxide, 50 gal dr....lb.	.....	.50	.50	.50
.67	.64	.67	.64	Diethylorthotoluidin, drs.....lb.	.64	.67	.67	.64
.26	.24	.26	.24	Diethyl phthalate, 1000 lb drums.....lb.	.24	.26	.26	.24
.35	.30	.35	.30	Diethylsulfate, technical, 50 gal drums.....lb.	.30	.35	.35	30
2.62	2.62	2 62	2.62	Dimethylamine, 400 lb drs...lb.	....	2.62	2.62	2.62
.32	.26	.32	.30	Dimethylaniline, 340 lb drs...lb.	.26	.28	.28	.26

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Prices Current and Comment

Purchasing Power of the Dollar: 1926 Average—$1.00 - 1929 Average $1.039 - Jan. 1929 $1.026 - July 1930 $1.191

Cellulose Acetate — A fair demand has existed and prices are stationary at 85 @ 90c depending upon quantity.

Celluloid — Transparent grade has been selling for 18 @ 20c and amber scrap at 14c.

Chlorine — Competitive conditions continue to rule this market although no additional price reductions were definitely announced during the month. The reduction made in June did not, however, have the desired effect of materially stabilizing the market or eliminating the keen existing competitive situation. Shipments to the paper industry have been better. Quotations remain at 2.4 @ 2.5c per lb.

Copper — The metal established a new low for the past twenty-eight years when the price was reduced to 11c a lb. Early in the month this price was quoted only by custom smelters, but finally became the ruling quotation with all electrolytic refiners. The export price was reduced, finally stabilizing at the 11.55c c. i. f. European ports figure. Excellent success was recorded at these figures in tempting large buyers into the market. Total July sales were estimated at 245,000 tons of which 72,000 tons were for export. This is a record for all time.

Copper Carbonate — The decline in the copper market resulted in a reduction in the agricultural grade (18-20%) to 8½c but the 52-54% grade remained firm at 18c. Demand for the agricultural product has slumped off considerably but inquiry from the industrial field continues to be fair.

Copper Cyanide — Despite the rather drastic drop in copper prices no price change has been announced. Demand continues to be only fair.

Copper Sulfate — Two separate reductions were made this month, each one a quarter of a cent, lowering the price in carlots to $4.25 cwt. Both reductions are attributed directly to the further fall in copper to the lowest level in twenty-eight years. The seasonal agricultural demand has about terminated. Shipments in July 1930, while not as good as July 1929, were sufficiently large to make the second quarter of this year a record one and to off-set the small tonnage of the first quarter. The first six months of 1930 compare very favorably with last year. While some talk exists of still lower copper prices the impression prevails that it probably will remain at the present figure for some time. Industrial demand for copper sulfate has been light. Exports of copper sulfate for the first five months amounted to 2,108,164 lbs. comparing unfavorably with 3,593,159 lbs. in 1929. It is hoped that foreign buyers will enter the market on a large scale at the new prices and

1929 High	1929 Low	1928 High	1928 Low		Current Market		1930 High	1930 Low
.50	.45	.50	.45	Dimethylsulfate, 100 lb drs...lb.	.45	.50	.50	.45
.16½	.15	.16½	.15½	Dinitrobenzene, 400 lb bbls...lb.	.15½	.16½	.16½	.15½
.15	.1[illegible]	.16	.15	Dintrochlorobenzene, 400 lb bbls.....lb.	.13	.15	.15	.13
.37	.34	.34	.32	Dinitronaphthalene, 350 lb bbls .....lb.	.34	.37	.37	.34
.32	.31	.32	.31	Dinitrophenol, 350 lb bbls....lb.	.31	.32	.32	.31
.19	.17	.19	.18	Dinitrotoluene, 300 lb bbls...lb.	.16	.17	.18	.16
.49	.42	90	.48	Diorthotolyguanidine, 275 lb bbls wks.....lb.	.42	.46	.46	.42
.....	.....	.....	.....	Dioxan (See Diethylene Oxide)	.....	.....	.....	.....
.50	.40			Diphenyl.....lb.	.30	.40	.50	.30
.47	.40	.47	.45	Diphenylamine.....lb.	.....	.40	.40	.40
.40	.30	.72	.40	Diphenylguanidine, 100 lb bbl lb.	.30	.35	.35	.30
.30	.26	.30	.26	Dip Oil, 25%, drums.....lb.	.26	.30	.30	.26
57.00	46.50	62.00	58.00	Divi Divi pods, bgs shipmt..ton	.....	35.00	46.50	35.00
.05½	.05	.05½	.05	Extract.....lb.	.05	.05½	.05½	.05
.84	.77	.82	.73	Egg Yolk, 200 lb cases.....lb.	.72	.75	.80	.72
1.90	1.70	1.75	1.7	Epsom Salt, tech, 300 lb bbls c-l NY.....100 lb.	1.70	1.90	1.90	1.70
.39	.38	.38	37	Ether, USP, 600 lb. drs.....lb.	.....	.14	.14	.14
				Anhydrous, C.P. 300 lb. drs.lb.	.....	.40	.40	.40
.122	.108	1.05	.75	Ethyl Acetate, 85% Ester, ... tanks.....lb.	.....	.097	.115	.097
.129	.111	1.25	1.10	drums.....lb.	.103	.109	.158	.103
				Anhydrous, tanks.....lb.	.....	.142	.142	.142
				drums.....lb.	.149	.156	.156	.149
.68	.65	.....	.....	Acetoacetate, 50 gal drs....lb.	.65	.68	.68	.65
1.11	1.05	1.11	1.05	Benzylaniline, 300 lb drs...lb.	1.05	1.11	1.11	1.05
.55	.50	.70	.70	Bromide, tech, drums .....lb.	.50	.55	.55	.50
1.90	1.85	.....	.....	Carbonate, 90%, 50 gal drs gal.	1.85	1.90	1.90	1.85
.22	.22	.22	.22	Chloride, 200 lb. drums....lb.	.....	.22	.22	.22
.40	.35	.....	.....	Chlorocarbonate, cbys.....lb.	.....	.30	.40	.30
.52	.50	.....	.....	Ether, Absolute, 50 gal drs..lb.	.50	.52	.52	.50
5.00	5.00			Furoate, 1 lb tins .....lb.	.....	5.00	5.00	5.00
.35	.25	3.50	3.50	Lactate, drums works.....lb.	.25	.29	.29	.25
.30	.30	.30	.30	Methyl Ketone, 50 gal drs..lb.	.....	.30	.30	.30
.55	.45	.55	.45	Oxalate, drums works.....lb.	.45	.55	.55	.45
.36	.30	.36	.30	Oxybutyrate, 50 gal drs wks.lb.	.....	.30½	.30½	.30½
.70	.79	.70	.70	Ethylene Dibromide, 60 lb dr .lb.	.....	.70	.70	.70
.85	.75	.85	.75	Chlorhydrin, 40%, 10 gal cbys. chloro. cont.....lb.	.75	.85	.85	.75
.10	.05	.11	.07	Dichloride, 50 gal drums...lb.	.05	.07	.07	.05
30	.25	.40	.25	Glycol, 50 gal drs wks.....lb.	.25	.28	.28	.25
.31	.23	.27	.31	Mono Butyl Ether drs wks.	.25	.27	.27	.23
.24	.16	.20	.24	Mono Ethyl Ether drs wks	.17	.20	.20	.16
.26	.19	.23	26	Mono Ethyl Ether Acetate dr. wks.....	.19½	.23	.23	.19
.23	.19			Mono Methyl Ether, drs.lb.	.21	.23	.23	.19
				Oxide, cyl.....lb.	.....	2.00	2.00	2.00
.65	.45	.65	.62	Ethylidenaniline.....lb.	.45	.47½	.47½	.45
25.00	20.00	25.00	20.00	Feldspar, bulk.....ton	25.00	20.00	25.00	20.00
21.00	15.00	21.00	15.00	Powdered, bulk works.....ton	15.00	21.00	21.00	15.00
.09	.05	.09	.07½	Ferric Chloride, tech, crystal 475 lb bbls.....lb.	.05	.07½	.07½	.05
4.25&10	3.65&10	5.50&10	4.90&10	Fish Scrap, dried, wks.....unit	.....	3.90&10	4.35&10	3.90&10
4.00&50	3.50&50	4.75&50	4.00&50	Acid, Bulk 7 & 3½% delivered Norfolk & Balt. basis...unit	.....	3.25&50	3.50&50	3.25&50
46.00	41.00	25.00	25.00	Fluorspar, 98%, bags.....	41.00	46.00	46.00	41.00

Formaldehyde

.....	.....	.....	.....	Formaldehyde, aniline, 100 lb. drums.....lb.	.....	.....	.....	.....
.42	.37½	.42	.39	USP, 400 lb bbls wks.....lb.	.37½	.42	.42	.37½
.10	.08½	.09	.08½	Fossil Flour.....lb.	.07½	.07½	.08	.07½
.04	.02½	.04	.02½	Fullers Earth, bulk, mines..ton	.02½	.04	.04	.02½
20.00	15.00½	20.00	15.00	Imp. powd c-1 bags.....ton	15.00	20.00	20.00	15.00
30.00	25.00	30.00	25.00	Furfural (tech.) drums, wks..lb.	25.00	30.00	30.00	25.00
.19½	.17	.19½	.1[illegible]½	Furfuramide (tech) 100 lb dr..lb.	.....	.10	.15	.10
.30	.30	.....	.....	Furfuryl Acetate, 1 lb tins....lb.	.....	.30	.30	.30
5.00	5.00	.....	.....	Alcohol, (tech) 100 lb dr....lb.	.....	5.00	5.00	5.00
.50	.50	.....	.....	Furoic Acid (tech) 100 lb dr...lb.	.....	.50	.50	.50
1.00	.50	.....	.....	Fusel Oil, 10% impurities ...gal.	.....	.50	.50	.50
1.35	1.35	1.35	1.3	Fustic, chips.....lb.	.. ..	1.35	1.35	1.35
.05	.04	.05	.0[illegible]	Crystals, 100 lb boxes.....lb.	.04	.05	.05	.04
.22	.20	.22	.20	Liquid, 50°, 600 lb bbls....lb.	.20	.22	.22	.20
.10	.09	.10	.09	Solid, 50 lb boxes.....lb.	.09	10	.10	.09
.16	.14	.23	.2[illegible]	Sticks.....ton	.14	.16	.16	.14
26.00	25.00	32.00	30.00	G Salt paste, 360 lb bbls.....lb.	25.00	26.00	26.00	25.00
.52	.45	.52	.50	Gall Extract.....lb.	.45	.50	.50	.45
.21	.18	21	.20	Gembier, common 200 lb cs...lb.	.18	.20	.20	.18
.07	06	.09	.08	25% liquid, 450 lb bbls....lb.	.06	.07	.07	.06
.14	.08	.14	.12	Singapore cubes, 150 lb bg..lb.	.08	.10	.10	.08
.09	.08½	.12	.11	Gelatin, tech, 100 lb cases....lb.	.08½	.09	.09	.08½
.50	.45	.50	.45	Glauber s Salt, tech, c-1 wks.....100 lb.	.45	.50	.50	.45
1.70	.70	1.00	.70	Glucose (grape sugar) dry 70-80° bags c-1 NY.....100 lb.	1.00	1.70	1.70	1.00
3.34	3.20	3.34	3.24	Tanner's Special, 100 lb bags .....100 lb.	3.24	3.34	3.34	3.24
3.14	3.14	3.14	3.14	Glue, medium white, bbls ...lb.	.....	3.14	3.14	3.14
.24	.20	.24	.20	Pure white, bbls.. .....lb.	.20	.24	.24	.20
.26	.22	.26	.22	Glycerin, CP, 550 lb drs.....lb.	.22	.26	.26	.22
.16	.13½	.19	.15	Dynamite, 100 lb drs..... lb.	.14	.14½	.14½	.14
.12½	.10½	.15	11½	Saponification, tanks.....lb.	.12	.12½	.12½	.12
.08½	.07½	.10½	.08½	Soap Lye, tanks.....lb.	.07½	.08	.08	.07½
.07½	.06½	.09½	.07½	Graphite, crude, 220 lb bgs...ton	07	.07½	.07½	.07
35.00	15.00	35.00	15.00	Flake, 500 lb bbls.....lb.	15.00	35.00	35.00	15.00
.09	.06	.09	.06		.06	09	.09	.06

Gums

.04½	.03	.04½	.03½	Gum Accroides, Red, coarse and fine 140-150 lb bags.....lb.	.03½	.04½	.04½	.03½
.06½	.06½	.06½	.06	Powd, 150 lb bags.....lb.	.06	.06½	.06½	.06

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Prices Current and Comment

Purchasing Power of the Dollar: 1926 Average—$1.00 - 1929 Average $1.039 - Jan. 1929 $1.026 - July 1930 $1.191

that part at least of the decrease of over a million pounds will be overcome in the next few months.

Dextrins — No further price changes have occurred since the reduction on June 24th, of 10c a 100 lb., on the corn and white grades. Demand continues to remain rather spotty.

Epsom Salt — The new tariff has imposed a duty of 25c a cwt., on this commodity and importers were obliged to increase their price more nearly in line with domestic producers. Importers are now offering U. S. P. at $2.00 and technical at $1.43 to $1.50 per cwt., according to quantity.

Ethyl Acetate — For the same reasons as given for the further reduction of butyl acetate, ethyl acetate reached lower figures during the month. Quotations are now at 9.7c a lb. for tanks; 10.3c for carload drums and 10.9c for drums less carload.

Fish Scrap — Trading was only of a very routine nature but sellers offered little in the way of price concessions to encourage heavier buying. The catch is said to have been rather spotty. Ground material remained unchanged as to price but wet acidulated was reduced slightly, material now being offered at $3.50 per unit. Until more definite news as to the new catch is known, buyers are simply covering their immediate requirements.

Formaldehyde — No change in price was made during the month, but shipments are lower, the inquiry for both domestic and foreign material was reported as being off.

Glycerine — No improvement in the present situation is noticeable and current prices are nominal at 13 @ 13½c a lb., for the chemically pure. Dynamite is offered at 10½ @ 10¾c in carlots, but shipments at this figure are very light. Considerable improvement is looked for later in the year from the anti-freeze trade as it is certain that automobile supply dealers will be larger distributors this year than they have been in the past.

Gums — This market has continued to be one of unsettled conditions and declining prices. Demand is at a standstill and price reductions have not stimulated buying to any great extent. However, with a favorable return of business conditions, the gum market should react with immediately strong tendencies for supplies and imports are about only one-third normal and an acute shortage is likely to occur with even slight increased demand. Present conditions are not satisfactory and actual business has been done on shaded prices. Important revisions for the month are Batavia Dust E seeds to 8-8½c lb., Benzoin Sumatra, U. S. P., 37-38c lb. The Antwerp market has remained dull.

1929 High	1929 Low	1928 High	1928 Low		Current Market	1930 High	1930 Low
.20	.18	.20	.18	Yellow, 150-200 lb bags....lb.	18	.20	.20	.18
.40	.35	.40	35	Animi (Zanzibar) bean & pea 250 lb cases.....lb.	.35	.40	.40	.35
.55	.50	.55	.50	Glassy, 250 lb cases.....lb.	.50	.55	.55	.50
.12	.09	.12	.09	Asphaltum, Barbadoes (Manjak) 200 lb bags.....lb.	.09	.12	.12	.09
.17	.15	.17	.15	Egyptian, 200 lb cases.....lb.	.15	.17	.17	.15
65.00	58.00	65.00	55.00	Gilsonite Selects, 200 lb bags .....ton	58.00	65.00	65.00	58.00
.26	.22	.26	.22½	Damar Batavia standard 136, lb cases.....lb.	.14	.14½	.20	.14
.11	.10½	.11	.10½	Batavia Dust, 160 lb bags.....lb.	.06	.06½	.11	.06
.17½	.15	.17½	.16	E Seeds, 136 lb cases.....lb.	.08	.08½	.13	.08
.13½	.13	.14½	.13	F Splinters, 136 lb cases and bags.....lb.	.07	.07½	.13½	.07
.30½	.26	.30½	.29½	Singapore, No 1, 224 lb cases lb.	.18½	.19	.24	.18½
24	.21½	.24	.20	No. 2, 224 lb cases.....lb.	.13	.13½	.20½	.13
.14	.10	.15	.13½	No. 3, 180 lb bags.....lb.	.07	.07½	.11½	.07
.40	.38	.48	.33	Benzoin Sumatra, U. S. P. 120 lb cases.....lb.	.37	.38	.40	.37
.17	.14	.15	.14	Copal Congo, 112 lb bags, clean opaque.....lb.	.16	.17	.17	.16
.09	.08½	.09	.08½	Dark, amber.....lb.	.07½	.08	.08	.07¾
.14	.12½	.14	.12½	Light, amber.....lb.	.12½	.14	.14	.12½
.36	.35	.36	.35	Water white.....lb.	.37	.45	.45	.37
.65	.58	.65	.58	Mastic.....lb.	.60	.62	.65	.59
.17½	.17	.17½	.16	Manila, 180-190 lb baskets Loba A.....lb.	.16	.16½	.17½	.16
.16½	.15½	.16½	.15	Loba B.....lb.	.14½	.15	.16½	.14½
.14½	.13½	.14	.13	Loba C.....lb.	.11½	.12	.14	.11½
.19	.17	.19	.16	Pale bold, 224 lb cs.....lb.	.16	.18	.19	.16
.13½	.13	.13½	.12	Pale nubs.....lb.	.12	.12½	.13½	.12
.11	.10	.11	.07½	East Indies chips, 180 lb bags lb.	.09	.10	.11	.09
.21	.20	.21	.17	Pale bold, 180 lb bags....lb.	.17½	.18	.21	.17½
.16	.15	.16	.14	Pale nubs.....lb.	.12½	.14	.16	.12½
.....	.....	.....	.....	Pontianak, 224 lb cases....				
.23	.20	.25½	.22	Pale bold gen No 1.....lb.	.19	.20	.21	.19
.15	.14½	.15	.13	Pale gen chips spot.....lb.	.13½	.14	.15	.13½
.14	.13½	.14	.13	Elemi, No. 1, 80-85 lb cs...lb.	.12½	.13	.14	.12½
.13½	.13	.13½	.13	No. 2, 80-85 lb cases....lb.	.12	.12½	.13½	.12
.13	.12	.13	.12	No. 3, 80-85 lb cases....lb.	.11	.12	.13	.11
.57	.50	.57	.50	Kauri, 224-226 lb cases No. 1	.50	.57	.57	.50
.38	.35	.38	.35	No. 2 fair pale.....lb.	.35	38	.38	.35
.12	.10	.12	.10	Brown Chips, 224-226 lb cases.....lb.	.10	.12	.12	.10
.....	.....	.....	.....	Bush Chips, 224-226 lb.				
.40	.38	.40	.38	cases.....lb.	.38	.40	.40	.38
.....	.....	.....	.....	Pale Chips, 224-226 lb cases				
.26	.24½	.26	.24½	.....lb.	.24½	.26	.26	.24½
.72	.35	.60	.26	Sandarac, prime quality, 200 lb bags & 300 lb casks...lb.	.32	.33	.40	.32
.20	.17	.....	.....	Helium, 1 lit. bot. .....lit.	.....	25.00	25.00	25.00
.20	.14	.20	.17	Hematine crystals, 400 lb bbls lb.	.14	.18	.18	.14
.11	.11	.11	.11	Paste, 500 bbls.....lb.	.....	.11	.11	.11
.03¾	.03	.03¾	.03½	Hemlock 25%, 600 lb bbls wks lb.	.03	.03½	.03½	.03
17.00	16.00	16.00	16.00	Bark.....ton	.....	16.00	16.00	16.00
.60	.60	.60	.60	Hexalene, 50 gal drs wks.....lb.	.....	.60	.60	.60
.58	.48	.56	.62	Hexamethylenetetramine, drs .lb.	.48	.50	.50	.48
4.00	3.75	4.00	4.00	Hoof Meal, fob Chicago....unit	.....	3.75	3.75	3.75
3.90	3.75	.....	.....	South Amer. to arrive....unit	.....	3.75	3.75	3.75
.26	.24	.26	.24	Hydrogen Peroxide, 100 vol, 140 lb cbys.....lb.	.24	.26	.26	.24
				Hydroxvamine Hydrochloride lb.	.....	3.15	3.15	3.15
.15	.12	.15	.12	Hypernic, 51°, 600 lb bbls....lb.	.12	.15	.15	.12
1.30	1.28	1.30	1.28	Indigo Madras, bbls.....lb.	1.28	1.30	1.30	1.28
.18	.15	.18	.15	20% paste, drums.....lb.	.15	.18	.18	.15
.12	.12			Synthetic, liquid.....lb.	.....	.12	.12	.12
				Iron Chloride, see Ferric or Ferrous				
.10	.09	.10	.09	Iron Nitrate, kegs.....lb.	.09	.10	.10	.09
3.25	2.50	3.25	2.50	Coml, bbls.....100 lb.	2.50	3.25	3.25	2.50
.12	.10	.12	.10	Oxide, English.....lb.	.10	.12	.12	.10
.03½	.02½	.03½	.02½	Red, Spanish.....lb.	.02½	.03½	.03½	.02½
.90	.85	.90	.85	Isopropyl Acetate, 50 gal drs gal.	.85	.90	.90	.85
.18	.16	.20	.17	Japan Wax, 224 lb cases.....lb.	.14½	.15	.15½	.14½
70.00	60.00	70.00	60.00	Kieselguhr, 95 lb bgs NY....ton	60.00	70.00	70.00	60.00
13.50	13.00	.....	.....	Lead Acetate, bbls wks...100 lb.	12.50	13.50	13.50	12.50
14.50	14.00	13.50	13.00	White crystals, 500 lb bbls wks.....100 lb.	12.00	13.00	14.50	12.00
.15	.13	.15	.13	Arsenate, drs 1c-1 wks.....lb.	.13	.16	.16	.13
				Dithiofuroate, 100 lb dr....lb.	.....	1.00	1.00	1.00
7.75	6.10	6.25	6.25	Metal, c-l NY.....100 lb.	.....	7.75	7.75	6.10
.14	.14	.14	.14	Nitrate, 500 lb bbls wks....lb.	.....	.14	.14	.14
.18	.17½	.18	.17½	Oleate, bbls.....lb.	.17½	.18	.18	.17½
.08¾	.08¾	.08¾	.08¾	Oxide Litharge, 500 lb bbls.lb.	.....	.08½	.08¾	.08½
.09¾	.09¾	.09¾	.09¾	Red, 500 lb bbls wks....lb.	.....	.09½	.09¾	.09½
.09¾	.09	.09	.09	White, 500 lb bbls wks...lb.	.....	.09½	.09¾	.09½
.08¾	.08½	.08½	.08½	Sulfate, 500 lb bbls wk...lb.	.....	.08¾	.08¾	.08¾
57.00	52.00			Leuna saltpetre, bags c.i.f...ton	.....	57.60	57.60	57.60
57.30	52.30			S. points c. i. f.....ton	.....	57.90	57.90	57.90
4.50	4.50	4.50	4.50	Lime, ground stone bags.....ton	.....	4.50	4.50	4.50
1.05	1.05	1.05	1.05	Live, 325 lb bbls wks...100 lb.	.....	1.05	1.05	1.05
.17	.15	.17	.15	Lime Salts, see Calcium Salts Lime-Sulfur soln bbls.....gal.	.15	.17	.17	.15
.06½	.05¾	.06½	.06½	Lithopone, 400 lb bbls lc-1 wks .....lb.	.....	.05¾	.05¾	.05¾
.08½	.08¼	.08½	.08¼	Logwood, 51°, 600 lb bbls.....lb.	.08¼	.08½	.08¼	.08¼
.03½	.03	.03½	.03	Chips, 150 lb bags.....lb.	.03	.03½	.03½	.03
.12½	.12½	.12½	.12½	Solid, 50 lb boxes.....lb.	.....	.12½	.12½	.12½
26.00	24.00	27.00	26.00	Sticks.....ton	24.00	26.00	26.00	24.00
.08	.07½	.08	.07½	Lower grades.....lb.	.07½	.08	.08	.07½
.25	.22	.30	.30	Madder, Dutch.....lb.	.22	.25	.25	.22
60.00	50.00	50.00	48.00	Magnesite, calc, 500 lb bbl...ton	50.00	60.00	60.00	50.00

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Prices Current and Comment

Purchasing Power of the Dollar: 1926 Average—$1.00 - 1929 Average $1.039 - Jan. 1929 $1.026 - July 1930 $1.191

Intermediates — While shipments are considerably below the record output of a year ago prices continue to show little recession. Resorcinol was reduced to $1.00 by a large Pennsylvania factor.

Lead Acetate — Due to the reduction in acetic acid, a decline was made of 1c per pound bringing the brown, broken, down to 11-12c and the white, crystal, to 12-13c per lb.

Lithopone — Shipments against contract were satisfactory. The 30% zinc sulfide grade was the poorest moving of the entire group but producers experienced no difficulty in making sales on the basis of 5¼c a lb. Stocks of imported are not excessive for this period of the year.

Mercury — The market has been rather quiet for the past month. A slight reduction was made in domestic bringing the price level down to $119 @ $120 per flask. Imported remains in the same strong position and the price of $124.50 has remained unchanged for the past ten months.

Methanol — Unsettled conditions have prevailed for a long period. Second hands have been offering material at reduced prices. Demand is considerably below normal and while producers have not announced any reductions the situation is very competitive.

Nickel Salts — Demand from automobile trade has been slow, but is partly counter-balanced by moderate movement in electrical and hardware lines. Exports for first five months amounted to 125,115 lbs., as against 225,790 lbs., in 1929.

Phenol — Prices have shown little tendency to change although the demand is lower due to continued curtailment in the plastic industry. The petroleum field has continued to take shipments in rather heavy volume.

Potassium Bichromate — Present tanning activity is slow but with leather now on the protective list increased activity is expected in the near future. Prices are firm at 8¾-9¼c according to quantity.

Potash Caustic — No change has occurred for some time in this commodity as prices are closely controlled abroad. Imports for the first five months of this year show an appreciable falling off, amounting to only 4,421,932 lbs., as against 6,667,958 lbs., for the same period in 1929.

Potassium Chlorate — Imports for the first five months increased over the corresponding period a year ago, the exact figures being, 6,175,928 lbs. in 1930 and 5,706,681 lbs. in 1929. Match manufacturers are curtailing buying activity

1929 High	1929 Low	1928 High	1928 Low		Current Market	1930 High	1930 Low
				Magnesium			
.06½	.06	06½	.06	Magnesium Carb, tech, 70 lb bags NY.....lb.	06	06½	.06½ .06
36.00	36.00	37.00	27.00	Chloride flake, 375 lb. drs c-l wks.....ton	.....	36.00	36.00 36.00
33.00	33.00	33.00	33.00	Imported shipment.....ton	.....	33.00	33.00 33.00
31.00	31.00	31.00	31.00	Fused, imp, 900 lb bbls NY ton	.....	31.00	31.00 31.00
.10½	.10	.10½	.10	Fluosilicate, crys, 400 lb bbls wks.....lb.	.10	.10½	.10½ .10
.42	.42	.42	.42	Oxide, USP, light, 100 lb bbls .....lb.	.....	.42	.42 .42
.50	.50	.50	.50	Heavy, 250 lb bbls.....lb.	.....	.50	.50 .50
1.25	1.00	.....	.....	Peroxide, 100 lb cs.....lb.	1.00	1.25	1.25 1.00
.10½	.09½	.10½	.09½	Silicofluoride, bbls.....lb.	.09½	.10½	.10½ .09½
.26	.25	.25	.23	Stearate, bbls.....lb.	.25	.26	.26 .25
.24	.19	.24	.24	Manganese Borate, 30%, 200 lb bbls.....lb.	.....	.19	.19 .19
.08½	.08	.08½	.08	Chloride, 600 lb casks.....lb.	.08	.08½	.08½ .08
.06	.04½	.....	.....	Dioxide, tech (peroxide) drs lb.	.04½	.06	.06 .04½
		.50	.35	Ore, powdered or granular			
.03½	.02½	.03½	.03	75-80%, bbls.....lb.	.02½	.03	.03 .02½
.04½	.03½	.04½	.04	80-85%, bbls.....lb.	.....	.03½	.03½ .03½
.05½	.04	.05½	.05	85-88%, bbls.....lb.	.04	.04½	.04½ .04
.08½	.07	.07½	.07	Sulfate, 550 lb drs NY.....lb.	.07	.08	.08 .07
Nom.	.03½	Nom.	.03½	Mangrove 55%, 400 lb bbls...lb.	.03½	Nom.	Nom. .03½
35.00	30.00	45.00	39 000	Bark, African.....ton	.....	32.00	33.00 32.00
15.00	14.00	12.00	10.00	Marble Flour, bulk.....ton	14.00	15.00	15.00 14.00
2.05	2 05			Mercurous chloride .....lb.	.. ..	2.05	2.05 2.05
126.00	120.00	132.00	121.00	Mercury metal.....75 lb flask	120.00	124.00	124.50 116.00
.74	.67	.74	.72	Meta-nitro-aniline.....lb.	.67	.69	.69 .67
1.55	1.50	1.80	1.50	Meta-nitro-para-toluidine 200 lb. bbls.....lb.	1.50	1.55	1.55 1.50
.90	.80	.94	90	Meta-phenylene-diamine 300 lb. bbls.....lb.	.80	.84	.84 .80
.72	.67	.74	.72	Meta-toluene-diamine, 300 lb bbls.....lb.	.67	.69	.69 .67
				Methanol			
.65	.51	.58	.46	Methanol, (Wood Alcohol),.... 95%.....gal.	.38	.42	.48 .38
.65	.53	.60	.47	97%.....gal.	.39	.43	.49 .39
.68	.53	.63	.44	Pure, Synthetic drums cars gal.	.....	.42½	.50 .42½
.66	.54	.58	.48	Synthetic tanks.....gal.	.....	.40½	.50 .40½
				Methanol antifreeze 76½%... tanks.....	.....	.31	.31 .31
.95	.95	.95	.95	Methyl Acetate, drums.....gal.	.. ..	Nom.	Nom. Nom.
.85	.73	.90	.68	Acetone.....gal.	.65	.70	.77 .65
.95	.85	.95	85	Anthraquinone.....lb.	.70	.75	.85 .70
.....	.....	.....	.....	Cellosolve, (See Ethylene Glycol Monc Methyl Ether)	.....	.....	....
.60	.45	60	.55	Chloride, 90 lb cyl.....lb.	.45	.45	.45 .45
.50	50			Furoate, tech., 50 gal. dr., .lb.	.....	.50	.50 .50
80.00	65.00	80.00	65.00	Mica, dry grd. bags wks.....lb.	65.00	80.00	80.00 65.00
115.00	110.00	115.00	110.00	Wet, ground, bags wks.....lb.	110.00	115.00	115.00 110.00
3.00	3.00	.....	.....	Michler's Ketone, kegs.....lb.	.....	3.00	3.00 3.00
.75	.70	.75	.70	Monochlorobenzene, drums see, Chorobenzene, mono.....lb. Monoethylorthotoluidin, drs. lb.	.70	.75	.75 .70
4.20	3.75	4.20	3.95	Monomethylparaminosufate 100 lb drums.....lb.	3.75	4.00	4.00 3.75
.07	.06½	.07	.06½	Montan Wax, crude, bags....lb.	.06	.07	.07 .06
.04½	.03½	.04½	.04½	Myrobalans 25%, liq bbls....b	.03½	.04½	.04½ .03½
.08½	.05	.08½	.08	50% Solid, 50 lb boxes.....lb.	.05	.05½	.05½ .05
43.00	40.00	50.00	42.00	J1 bags.....ton	.....	41.00	41.00 41.00
40.00	26.50	40.00	32.50	J 2 bags.....ton	.....	25.00	26.50 25.00
34.00	27.50	40.00	32.50	R 2 bags.....ton	.....	24.50	27.50 24.50
.18	.16	.18	.18	Naphtha, v. m. & p. (deodorized) bbls.....gal.	.....	.16	.16 .16
.05½	.05½	.06	.05½	Naphthalene balls, 250 lb bbls wks.....lb.	.....	.05½	.05½ .05½
.04½	.04½	.04½	.04½	Crushed, chipped bgs wks..lb.	.....	.04½	.04½ .04½
.05	.05	.05	.05	Flakes, 175 lb bbls wks....lb.	.....	.05	.05 .05
.24	.20	.24	.21	Nickel Chloride, bbls kegs....lb.	.20	.21	.21 .20
.40	.37	.38	.35	Oxide, 100 lb kegs NY.....lb.	.37	.40	.40 .37
.13	.13	.09½	.09	Salt bbl. 400 bbls lb NY...lb.	.....	.13	.13 .13
.13	.13	.09	.08½	Single, 400 lb bbls NY.....lb.	.....	.13	.13 .13
1.30	1.25	1.30	1.25	Nicotine, free 40%, 8 lb tins, cases.....lb.	1.25	1.30	1.30 1.25
1.20	.98½	1.20	.98½	Sulfate, 10 lb tins.....lb.	.98½	1.20	1.20 .98½
18.00	12.00	14.00	13.00	Nitre Cake, bulk .....ton	14.00	16.00	18.00 14.00
.10½	.09	.10½	.10½	Nitrobenzene, redistilled, 1000 lb drs wks.....lb.	.09	.09½	.09½ .09
.36	.25	Nom.	.40	Nitrocellulose, c-l-l-cl, wks...lb.	.25	.36	.36 .25
4.00	3.40	4.00	3.35	Nitrogenous Material, bulk..unit	.....	3.00	3.40 3.00
.25	.25	.25	.25	Nitronaphthalene, 550 lb bbls.lb.	.....	.25	.25 .25
.15	.14	.15	.14	Nitrotoluene, 1000 lb drs wks.lb.	.14	.15	.15 .14
.16½	.16	Nom.	.25	Nutgalls Aleppy, bags.....lb.	.16	.16½	.16½ .16
.13	.12	.18	.17	Chinese, bags.....lb.	.12	.13	.13 .12
50.00	30.00	50.00	45.00	Oak Bark, ground.....ton	30.00	35.00	35.00 30.00
23.00	20.00	23.00	20.00	Whole.....ton	20.00	23.00	23.00 20.00
.13½	11½	.13½	.13	Orange-Mineral, 1100 lb casks NY.....lb.	.11½	.13	.13 .11½
2.25	2.15	2.25	2.20	Orthoaminophenol, 50 lb kgs..lb.	2.15	2.25	2.25 2.15
2.60	2.50	2.50	2.35	Orthoanisidine, 100 lb drs....lb.	2.50	2.60	2.60 2.50
.65	.50	.65	.50	Orthochlorophenol, drums....lb.	.50	.65	.65 .50
.28	.18	.28	.18	Orthocresol, drums.....lb.	.25	.25	.35 .18
.10	.07	.07	.06	Orthodichlorobenzene, 1000 lb drums.....lb.	.07	.10	.10 .07
.33	.30	.35	.32	Orthonitrochlorobenzene, 1200 lb drs wks.....lb.	.30	.33	.33 .30
.18	.16	.18	.17	Orthonitrotoluene, 1000 lb drs wk.....lb.	.16	.18	.18 .16
.90	.85	.90	.85	Orthonitrophenol, 350 lb dr...lb.	.85	.90	.90 .85
.30	.25	.31	.29	Orthotoluidine, 350 lb bbl 1c-l lb.	.25	30	.30 .25

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Prices Current and Comment

Purchasing Power of the Dollar: 1926 Average—$1 00 - 1929 Average $1.039 - Jan. 1929 $1.026 - July 1930 $1.191

temporarily. A decline of ½c a lb. was put into effect during the month.

Potassium Permanganate — Fairly good movement has been noted against contracts but new business is spotty. Prices are firm at 16 @ 16½c per lb.

Pyridin — The demand for this product has decreased sharply. Imports for the first five months of 1930 amounted to only 1,064 lbs. as against 20,813 lbs. in 1929.

Rosins — The decidedly weak tone which has been characteristic of the Rosin market continued further during the past month. Prices have continued to fall to new low points and there seems to be no clear indication that any improvement would occur for sometime. The demand for immediate shipments has fallen off even from the low point of June.

Sal Soda — Slight improvement has been noted from the textile centers. Routine inquiry for cleaning purposes has remained unchanged.

Salt Cake — Lack of sufficient supplies have resulted in continuance of firm prices. With the gradual reduction in older methods for manufacturing muriatic, scarcity should continue indefinitely. Current prices are quoted at $20-$25 a ton.

Shellac — This commodity has shown extreme weakness in the past month, prices falling to the lowest levels that have existed for the past twenty years.

Soda Ash — The decline in shipments which became definitely noticeable last month has continued through July, with the soap industry curtailing activities still further. Several producers have estimated the reduction as high as 10% below the figures for last year. With the consumption and production of gasoline showing definite increases over last year it is not surprising that shipments to this industry has shown some improvement. Exports have, on the other hand, increased over last year. In the first five months of 1930 exports amounted to 31,863,173 lbs., as against 24,822,016 lbs. in the same period a year ago.

Soda Caustic — Manufacturers have estimated the decrease in tonnage actually shipped during the month of July at about 10%, when compared with the same month a year ago.

Sodium Cyanide — With automobile production for first six months at a low ebb and with many of the companies completely shut down for vacations, demand and shipments are only fair.

Sodium Nitrate — A reduction of 5c a cwt. was made in the new provisional prices announced by importers. With prices more definitely known, increased activity is expected. The new Chilean nitrate Combine should tend towards stabilized prices and keener competition

1929 High	1929 Low	1928 High	1928 Low		Current Market	1930 High	1930 Low
				Orthonitroparachlorphenol, tins ....lb.	.70	.75	.70
.75	.70	.75	.70	Osage Orange, crystals.....lb.	.16	.17	.16
.17	.16	17	.16	51 deg. liquid.....lb	.07	.07½	.07
.07½	.07	.07	.07	Powdered, 100 lb bags.....lb	.14½	.15	.14½
.15	.14½	.15	.14½	Paraffin, refd, 200 lb cs slabs			
.06¾	.04½	.06¾	.06½	123-127 deg. M P.....lb.	04½	.04¾	.04¼
.07	.04½	.07¾	.07½	128-132 deg. M. P.....lb	04½	.06¾	.04½
.07¾	.06½	.08½	.08	133-137 deg. M. P. .....lb	06½	.07½	.06½
.28	.20½	.28	.20½	Para Aldehyde, 110-55 gal drs..lb.	.20½	.23	.20½
1.05	1.00	1.05	1.00	Aminoacetanilid, 100 lb bg..lb	1.00	1.05	1.05 1.00
1.30	1.25	1.30	1.25	Aminohydrochloride, 100 lb kegs.....lb	1.25	1.30	1.30 1.25
1.15	.99	1.15	1.15	Aminophenol, 100 lb keg...lb.	.92	1.25	1.02 .92
.65	.50	.65	.50	Chlorophenol, drums.....lb	50	.65	.65 .50
....	....	....	....	Coumarone, 330 lb drums. lb	.. ..	.. ..	....
2.50	2.25	2.50	2.25	Cymene, refd, 110 gal dr..gal	2 25	2.50	2.50 2.25
.20	.17	.20	.17	Dichlorobenzene, 150 lb bbl wks.....lb.	17	.20	.20 .17
.55	.50	.55	.50	Nitroacetanilid, 300 lb bbls.lb.	.50	.55	.55 .50
.55	.48	.59	.48	Nitroaniline, 300 lb bbls wks .....lb	.48	.55	.55 .48
.26	23	.32	.32	Nitrochlorobenzene, 1200 lb drs wks.....lb.	.23	. 6	.26 .23
2.85	2 75	2.85	2.75	Nitro-orthotoluidine, 300 lb bbls.....lb.	2.75	2. 5	2.85 2.75
.55	.45	.55	.50	Nitrophenol 185 lb bbls....lb.	45	50	.50 .45
.94	.92	.94	.92	Nitrosodimethylaniline, 120 lb. bbls.....lb.	.92	. 4	.94 .92
.31	.29	.30	.30	Nitrotoluene, 350 lb bbls....lb.	.29	.3	.31 .29
1.20	1.15	1.20	1.15	Phenylenediamine, 350 lb bbls .....lb.	1.15	1.20	1.20 1.15
.75	.70	.41	.40	Tolueneulfonamide, 175 lb bbls.....lb.	.70	.75	75 70
.22	.20	.22	.20	Toluenesulfonchloride, 410 lb bbls wks.....lb.	.20	.22	.22 .20
.42	.38	.42	.40	Toluidine, 350 lb bbls wk...lb.	.38	.40	.40 .38
.27	25	.25	20	Paris Green, Arsenic Basis 100 lb kegs.....lb.	.....	.27	.27 27
.25	.23	.23	.17	250 lb kegs.....lb.	.....	.25	.25 .25
25	.25	.....	.....	Persian Berry Ext., bbls.....lb.	.25	Nom.	Nom. .25
				Pentasol (see Alcohol, Amyl)...			
				Pentasol Acetate (see Amyl Acetate)			
02½	.02	.03	.02½	Petrolatum, Green, 300 lb bbl.lb.	.02	.02½	.02½ .02
.16	13	.13	.20	Phenol, 250-100 lb drums.....lb.	.14½	.15	.15 .14¼
1.35	1.35	1.35	1.3.	Phenyl - Alpha - Naphthylamine, 100 lb kegs.....lb.	.....	1.35	1.35 1.35
				Phenylhydrazine Hydrochloride .....lb.	2.90	3.00	3.00 2.90
				Phosphate			
				Phosphate Acid (see Superphosphate)			
				Phosphate Rock, f.o.b. mines			
3.15	3.00	3.15	3.00	Florida Pebble, 68% basis..ton	3.00	3.15	3.15 3.00
4.00	3.50	3.65	3.50	70% basis.....ton	3.75	4.00	4.00 3.75
4.50	4.00	4.15	4.00	72% basis.....ton	4.25	4.50	4.50 4.25
5.50	5.00	5.00	5.00	75-74% basis.....ton	5.25	5.50	5.50 5.25
5.75	5.75	5.75	5.75	75% basis.....ton	.....	5.75	5.75 5.75
6.25	6.25	6.25	6.25	77-76% basis..... ton	.....	6.25	6.25 6.25
5.00	5.00	5.00	5.00	Tennessee, 72% basis.... ton	.....	5.00	5.00 5.00
.40	.20	.40	.35	Phosphorous Oxychloride 175 lb cyl.....lb	.20	.25	.25 .20
.60	.37½	.65	.60	Red, 110 lb cases.....lb.	.37½	.42	.42 .37½
.32	.31	.32	.32	Yellow, 110 lb cases wks..lb.	.31	.37½	.37½ .31
.46	.44	.46	.46	Sesquisulfide, 100 lb cs.....lb.	.. ..	.44	.44 .44
.35	.20	.....	.....	Trichloride, cylinders.....lb.	.20	.25	.25 .20
.20	.18	.20	.18	Phthalic Anhydride, 100 lb bbls wks.....lb.	.16	.18	.20 .16
45.00	37.00	45.00	37.00	Pigments Metallic, Red or brown bags, bbls, Pa. wks.... ton	37 00	45.00	45.00 37.00
.64	.63	.64	.63	Pine Oil, 55 gal drums or bbls Destructive dist.....lb.	63	64	.64 .63
10.60	8.00	10.60	8.00	Prime bbls.....bbl.	8.00	10.60	10.60 8.00
.70	.65	.70	.70	Steam dist. bbls.....gal.	65	.70	.70 .65
45.00	40.00	45.00	40 00	Pitch Hardwood,..... wks.....ton	40.00	45.00	45.00 40.00
3.50	3.30	3.30	3.30	Plaster Paris, tech, 250 lb bbls ..... bbl.	3.30	3.5.	3 50 3.30
				Potash			
.07½	.06½	.07½	.07½	Potash, Caustic, wks, solid...lb.	06½	.06½	.06½ .06½
.07½	.0705	.07½	.07½	flake.....lb.	.0705	08	.08 .0705
				Potash Salts, Rough Kainit			
9.10	9.00	9.00	9.00	12.4% basis bulk.....ton	.....	9.20	9.20 9.10
9.60	9.50	9.50	9.50	14% basis.....ton	.....	9.70	9.70 9.60
				Manure Salts.....			
12.50	12.40	12.40	12.40	20% basis bulk.....ton	.....	12.65	12.65 12.50
18.95	18.75	18.75	18.75	30% basis bulk.....ton	.....	19.15	19.15 18.95
				Potassium Acetate .....lb.	.27	.30	.30 .27
36.75	36.40	36.40	36.40	Potassium Muriate, 80% basis bags.....ton	.....	37.15	37.15 36.75
27.50	27.00	27.00	27.00	Pot. & Mag. Sulfate, 48% basis bags..... ton	.....	27.80	27.80 27.50
47.75	47.30	47.30	47.30	Potassium Sulfate, 90% basis bags. .... ton	.....	48.25	48.25 47.75
.14	.09½	.09½	.09	Potassium Bicarbonate, USP, 320 lb bbls..... lb.	.09½	.10	.10 .09½
.09½	.09	.09½	.08¼	Bichromate Crystals, 725 lb casks.....lb.	.08¾	.09½	.09½ .08¾
.13½	.13	.12½	.12	Powd., 725 lb cks wks....lb.	.13	.13½	.13½ .13

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Prices Current and Comment

Purchasing Power of the Dollar: 1926 Average—$1.00 - 1929 Average $1.039 - Jan. 1929 $1.026 - July 1930 $1.191

for synthetic producers. The July, September positions are quoted at $2.02 carlots and $1.99 for 100 ton lots; October-December $2.05; January at $2.08 and February to June $2.10 carlots with the usual 3c differential for 100 ton lots. Nitrate production for June amounted to 202,657 tons as against 215,400 tons for May 1930. World stocks at the beginning of June amounted to 2,311,000 metric tons, a decrease of 12,000 tons from the previous month.

Sodium Phosphate — Shipments of the tri-calt have been very satisfactory and prices have remained firm despite continued increase in production. The di-salt is now moving out in slightly better tonnage due to a small, but nevertheless, definite improvement in the silk-weighing industry.

Sodium Prussiate, Yellow — Prices were unaltered. Curtailment in the paint and dry color industries has reflected itself in smaller shipments. Imports for the first five months amounted to 698,000 lbs., compared with 718,508 lbs., in 1929.

Sodium Silicate — Demand from the corrugated-box board trade is slower this year than last but is still quite satisfactory. A slight increase in shipments of water white is noted due to the slightly improved conditions in the silk-weighing centers. No change from quoted prices have been made in the past month. Export shipments for the first five months of 1930 were 25,595,561 lb. as against 27,502,909 lbs. for the same period in 1929.

Sodium Silicofluoride — A reduction of ¾c a lb. was announced by both domestic producers and importers. Withdrawals for the laundry trade were fairly active. The new prices ranged between 4 @ 4½c a lb. depending upon quantity.

Starch — No further price reductions have been made since June 24th when the powdered and pearl grades were reduced 10c a cwt.

Sodium Sulfide — Prices continued firm for domestic material in spite of a rather light demand. It was rumored in the trade that imported could be obtained for immediate delivery at a slight concession.

Superphosphate — Poor demand and large supplies continued to dominate the fertilizer market and further weakness in the superphosphate price structure was shown when prices were reduced to the basis of $8.50 per ton. Tag sales for fertilizer in June amounted to 83,096 tons comparing unfavorably with 102,053 tons during the same month in 1929. However some encouragement is noted from the fact that the total sales for the seven months period, Dec.-June amounted to 5,412,355 tons as against 5,237,851 tons

1929 High	1929 Low	1928 High	1928 Low		Current Market	1930 High	1930 Low
.17	.14	.17	.16	Binoxiate, 300 lb bbls.....lb.	.14	.17	.17	.14
.30	.30	.30	.30	Bisulfate, 100 lb kegs.....lb.	.....	.30	.30	.30
.05½	.05½	.05½	.05½	Carbonate, 80-85% calc. 800 lb casks.....lb.	.05½	.05½	.05½	.05½
.09	.08½	.09	.06½	Chlorate crystals, powder 112 lb keg wks.....lb.	.08	.08½	.09	.08
.05½	.05½	.05½	.05½	Chloride, crys bbls.....lb.	.05½	.06	.06	.05½
.28	.23	.28	.27	Chromate, kegs.....lb.	.23	.28	.28	.23
.57½	.55	.57½	.55	Cyanide, 110 lb. cases.....lb.	.55	.57½	.57½	.55
.13	.11½	.12	.11½	Metabisulfite, 300 lb. bbl...lb.	.12	.13	.13	.12
.24	.16	.17	.16	Oxalate, bbls.....lb.	.20	.24	.24	.20
.12	.11	.12	.11	Perchlorate, casks wks.....lb.	.11	.12	.12	.11
.16½	.16	.15½	.15	Permanganate, USP, crys 500 & 100 lb drs wks.....lb.	.16	.16½	.16½	.16
.40	.38	.38	.37	Prussiate, red, 112 lb keg...lb.	.38	.40	.40	.38
.21	.18½	.18½	.18	Yellow, 500 lb casks.....lb.	.18½	.21	.21	.18½
.51	.51	.51	.51	Tartrate Neut, 100 lb keg..lb.	.....	.21	.21	.21
.25	.21	.25	.25	Titanium Oxalate, 200 lb bbls .....lb.	.21	.23	.23	.21
5.00	5.00	..	.....	Propyl Furoate, 1 lb tins.....lb.	.....	5.00	5.00	5.00
.05	.04	.05	.04	Pumice Stone, lump bags.....lb.	.04	.05	.05	.04
.06	.04½	.06	.04½	250 lb bbls.....lb.	.04½	.06	.06	.04½
.03	.02½	.03	.02½	Powdered, 350 lb bags.....lb.	.02½	.03	.03	.02½
.03½	.03½	.03½	.03½	Putty, commercial, tubs..100 lb.	.....	.03½	.03½	.03½
.05½	.05½	.05½	.05½	Linseed Oil, kegs.....100 lb.	.....	.05½	.05½	.05½
1.75	1.50	1.50	1.50	Pyridine, 50 gal drums.....gal.	1.50	1.75	1.75	1.50
.13½	.13	.13	.13	Pyrites, Spanish cif Atlantic ports bulk.....unit	.13	13½	.13½	.13
.04	.03	.04	.03	Quebracho, 35% liquid tks....lb.	.03	.04	.04	.03
.04½	.03½	.04	.03½	450 lb bbls c-1.....lb.	.03½	.03½	.03½	.03½
.04½	.05½	.05	.04	35% Bleaching, 450 lb bbl .lb.	.04½	.05½	.04½	.05½
.05½	.05½	.05	.05	Solid, 63%, 100 lb bales cif..lb.	.05	.05½	.05½	.05
.05½	.05½	.05	.05	Clarified, 64%, bales.....lb.	.....	.05½	.05½	.05½
.06	.05½	.06	.05½	Quercitron, 51 deg liquid 450 lb bbls.....lb.	.05½	.06	.06	.05½
.13	.10	.13	.10	Solid, 100 lb boxes.....lb.	.10	.13	.13	.10
14.00	14.00	14.00	14.00	Bark, Rough.....ton	.....	14.00	14.00	14.00
35.00	34.00	35.00	34.00	Ground.....ton	34.00	35.00	35.00	34.00
.46	.44	.46	.45	R Salt, 250 lb bbls wks.....lb.	.40	.44	.45	.40
.18	.18	.....	.....	Red Sanders Wood, grd bbls..lb.	.....	.18	.18	.18
1.25	1.15	1.35	1.25	Resorcinol Tech, cans.....lb.	1.00	1.25	1.25	1.00
.62	.57	.57	.57	Rosin Oil, 50 gal bbls, first run .....gal.	.57	.58	.58	.57
.64	.60	.62	.62	Second run.....gal.	.60	.61	.61	.60

Rosin

				Rosins 600 lb bbls 280 lb...unit				
9.25	7.45	9.75	8.20	B.....	.....	5.60	7.75	6.50
9.25	7.70	9.80	8.25	D.....	.....	5.60	8.00	6.50
9.27	8.30	9.95	8.60	E.....	.....	5.62½	8.17	6.55
9.27	8.40	10.10	8.65	F.....	.....	5.62½	8.45	6.55
9.45	8.40	10.10	8.75	G.....	.....	5.65	8.45	6.60
9.50	8.40	10.10	8.75	H.....	.....	5.65	8.55	6.60
9.50	8.40	10.15	8.80	I.....	.....	5.67½	8.58	6.60
9.55	8.45	10.15	8.85	K.....	.....	5.76	8.65	6.65
9.85	8.50	10.30	8.85	M.....	.....	5.72½	8.80	6.70
10.30	8.93	11.00	9.15	N.....	.....	6.25	8.95	7.00
11.30	9.00	11.65	10.15	WG.....	.....	6.50	9.25	7.25
12.30	9.30	12.65	10.40	WW.....	.....	7.60	9.85	8.30
30.00	24.00	30.00	24.00	Rotten Stone, bags mines....ton	24.00	20.00	30.00	18.00
.08	.05	.08	.07	Lump, imported, bbls.....lb.	.05	.07	.07	.05
.12	.09	.12	.09	Selected bbls.....lb.	.09	.12	.12	.09
.05	.02	.05	.02	Powdered, bbls.....lb.	.02	.05	.05	.02
.05	.04½	.05	.04½	Sago Flour, 150 lb bags.....lb.	.04½	.05	.05	.04½
1.00	1.00	.....	.....	Sal Soda, bbls wks.....100 lb.	....	1.00	1.00	1.00
24.00	19.00	20.00	19.00	Salt Cake, 94-96% c-1 wks. .ton	20.00	24.00	24.00	20.00
21.00	12.00	17.00	15.00	Chrome .....ton	18.00	25.00	25.00	18.00
.06½	.06½	.06½	.06½	Saltpetre, double refd granular 450-500 lb bbls.....lb.	.06½	.06½	.06½	.06½
.01½	.01½	.01½	.01½	Satin, White, 500 lb bbls.....lb	.....	.01½	.01½	.01½
.61	.47	.62½	.49	Shellac Bone dry bbls.....lb.	.28	.33	.47	.28
.45	.40	.55	.45	Garnet, bags.....lb.	.25	.28	.40	.25
.47	.39	.58	.47	Superfine, bags.....lb.	.23	.29	.39	.23
.44	.36	.55	.42	T. N. bags.....lb.	.23	.26	.34	.23
.57	.53	.57	.53	Schaeffer's Salt, kegs.....lb.	.53	.57	.57	.53
11.00	8.00	11.00	8.00	Silica, Crude, bulk mines....ton	8.00	11.00	11.00	8.00
30.00	22.00	30.00	22.00	Refined, floated bags.....ton	22.00	30.00	30.00	22.00
32.00	32.00	.....	.....	Air floated bags.....ton	.....	32.00	32.00	32.00
40.00	32.00	40.00	32.00	Extra floated bags.....ton	32.00	40.00	40.00	32.00
22.00	15.00	22.00	15.00	Soapstone, Powdered, bags f. o. b. mines.....ton	15.00	22.00	22.00	15.00

Soda

				Soda Ash, 58% dense, bags c-1				
1.40	1.40	1.40	1.40	wks.....100 lb.	.....	1.40	1.40	1.40
1.34½	1.34½	2.29	2.40	58% light, bags.....100 lb.	.....	1.34½	1.34½	1.34½
1.32	1.32	1.32½	1.32½	Contract, bags c-1 wks.100 lb.	.....	1.32	1.32	1.32
				Soda Caustic, 76% grnd & flake				
3.35	3.35	4.21	4.16	drums.....100 lb.	.....	3.35	3.35	3.35
2.95	2.95	3.91	3.76	76% solid drs.....100 lb.	.....	2.95	2.95	2.95
2.90	2.90	3.00	3.00	Contract, c-1 wks.....100 lb.	.....	2.90	2.90	2.90
.06½	.04½	.05	.04½	Sodium Acetate, tech....450 lb. bbls wks.....lb.	.05	.05½	.05½	.04
.19	.18	.....	.....	Arsenate, drums.....lb.	.18	.19	.19	.18
1.50	.75	.....	.....	Arsenite, drums.....gal.	.75	1.00	1.00	.75
2.41	2.41	2.41	2.41	Bicarb, 400 lb bbl NY..100 lb.	.....	2.41	2.41	2.41

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WEEKLY NAVAL STORES REVIEW
P. O. Box 948, Savannah, Georgia

Prices Current and Comment

Purchasing Power of the Dollar: 1926 Average—$1.00 - 1929 Average $1.039 - Jan. 1929 $1.026 - July 1930 $1.191

for the same period last year. Production of bulk superphosphate amounted to 408,905 tons in May compared with 388,241 tons in April and 345,916 tons in May of 1929. Shipments in May totalled only 143,738 tons against 366,207 tons in April. Stocks on hand at the end of May were 741,394 tons compared with 621,258 tons in April.

Tin Crystals — In sympathy with the tin market the price of this commodity declined 1c a lb. during the early part of the month only to react again to higher prices, with the final net result of a decline of ½c.

Tin Tetrachloride — Shipments into the silk-weighing industry were heavier during the past month. As with the crystal a decline and slight increase was made during the month. Tin producers association have announced that the probable curtailment for the remainder of the year will be 17,100 tons.

Toluene — Sharp curtailment of production activity has prevented any serious price cuts, except in the far west, where some shading of prices has been reported. The iron and steel industry, operating at about 62% has reduced shipping schedules to their various units and until these industries feel the impetus of increased business activity, it is unlikely that any improvement in the coaltar tonnage will occur.

Turpentine — The chief buyer of this commodity, the paint trade, was still purchasing in hand-to-mouth quantities so that the demand still remains very poor. Prices exhibited a tendency towards the latter portion of the month.

Waxes — Demand has been rather weak for the past month. All grades of Carnauba were reduced 2c a lb. Beeswax has been in rather heavy supply and consequently prices were reduced ½c a lb. A slight reduction was noted in montan, the last quotations being 9⅞c a lb.

OILS AND FATS

Castor Oil — Small lot trading prevailed in this commodity. A fair amount of inquiries were made for larger quantities but sales were restricted. No change in prices were recorded.

Chinawood Oil — Demand has continued to remain practically at a standstill for the past month, while stocks both spot and in China have continued to accumulate to such a point that further reductions were made as an inducement to buyers to step into the market in a really substantial way. As a result, spot bbl. in the local market dropped to a low of 9½c and sales for August shipment in

1929 High	1929 Low	1928 High	1928 Low		Current Market	1930 High	1930 Low
.07¾	.07	.07	.06½	Bichromate, 500 lb cks wks..lb.	.07	.07½	.07½	.07
.04	.04	.04	.04	Bisulfite, 500 lb bbl wks....lb.	.....	.04	.04	.04
1.35	1.30	1.35	1.30	Carb. 400 ib bbls NY..100 lb.	. ...	2.30	2.30	2.30
.11	.06½	.06½	.05½	Chlorate, ... wks..lb.	.05½	.07½	.08	.05½
13.00	12.00	13.00	12.00	Chloride, technical.....ton	12.00	13.00	13.00	12.00
.20	.18	.20	.20	Cyanide, 96-98%, 100 & 250 lb drums wks.....lb.	.16	.17	.20	.16
.09	.08½	.09	.08¼	Fluoride, 300 lb bbls wks...lb.	.08¼	.08½	.09	.08¼
.24	.22	.24	.22	Hydrosulfite, 200 lb bbls f. o. b. wks.....lb.	.22	.24	.24	.22
.05	.05	.05	.05	Hypochloride solution, 100 lb cbys.....lb.	.....	.05	.05	.05
3.05	2.50	3.05	2.65	Hyposulfite, tech, pea cyrs 375 lb bbls wks.....100 lb.	2.50	3.00	3.00	2.50
2.65	2.40	2.65	2.40	Technical, regular crystals 375 lb bbls wks....100 lb.	2.40	2.65	2.65	2.40
.45	.45	.45	.45	Metanilate, 150 lb bbls.... lb.	.....	.45	.45	.45
.02½	.02½	.....	.....	Monohydrate, bbls.....lb.	.....	.02½	.02½	.02½
.57	.54	57	.55	Naphthionate, 300 lb bbl...lb.	.54	.57	.57	.54
2.22½	2.09	2.45	2.12½	Nitrate, 92%, crude, 200 lb bags c-1 NY.....100 lb.	1.99	2.07	2.22½	1.99
.08	.07½	.08½	.07½	Nitrite, 500 lb bbls spot....lb.	.07½	.08	.08	.07½
.27	.25	.27	.25	Orthochlorotoluene, sulfonate, 175 lb bbls wks.....lb.	.25	.27	.27	.25
.42	.37	.23	.20	Oxalate Neut, 100 lb kegs..lb.	.37	.42	.42	.37
.22	.18	.22	.21	Perborate, 275 lb bbls.....lb.	.18	.20	.20	.18
3.55	3.25	3.55	3.25	Phosphate, di-sodium, tech. 310 lb bbls.....100 lb.	3.00	3.25	3.25	3.00
4.00	3.90	.....	.....	tri-sodium, tech, 325 lb bbls.....100 lb.	3.50	4.00	4.00	3.50
.72	.69	.72	.69	Picramate, 100 lb kegs.....lb.	.69	.72	.72	.69
.12½	.12	.12½	.12	Prussiate, Yellow, 350 lb bbl wks.....lb.	.12	.12½	12½	.12
.20	.15	.14	.13½	Pyrophosphate, 100 lb keg..lb.	.15	.20	.20	.15
1.55	1.65	1.45	1.20	Silicate, 60 deg 55 gal drs, wks .....100 lb.	.....	1.65	1.65	1.65
.80	.70	1.10	.85	40 deg 55 gal drs, wks .....100 lb.	.70	.80	.80	.70
.05½	.05	.05	.05	Silicofluoride, 450 lb bbls NY .....lb.	.04	.04¾	.05½	.04
.43	.38	.49	.48½	Stannate, 100 lb drums....lb.	.....	.34	.43	.34
.29	.25	.29	.18	Stearate, bbls.....lb.	.25	29	.29	.25
.18	.16	.18	.16	Sulfanilate, 400 lb bbls.....lb.	.16	.18	.18	.16
.02¾	.02½	.02¾	.02½	Sulfate Anhyd, 550 lb bbls c-1 wks.....lb.	.02½	02¾	.02¾	.02½
.02¾	.02½	02¾	.02½	Sulfide, 80% crystals, 440 lb bbls wks.....lb.	.02½	.02¾	.02¾	.02½
.04	.03½	.04	.03½	62% solid, 650 lb drums 1c-1 wks.....lb	.03	03½	.03½	.03
.03½	.03	.03½	.03¾	Sulfite, crystals, 400 lb bbls wks.....lb.	.03	.03½	.03½	.03
.76	.28½	.50	.40	Sulfocyanide, bbls.....lb.	.28	.35	.35	.28
1.40	.88	.85	.80	Tungstate, tech, crystals, kegs .....lb.	.....	.88	.88	.88
.40	.35	.40	.35	Solvent Naphtha, 110 gal drs wks.....gal.	.35	40	.40	.35
.01¾	.01¾	.01¾	.01¾	Spruce, 25% liquid, bbls.....lb.	.....	.01¾	.01¾	.01¾
.01	.01	.01	.01	25% liquid, tanks wks.....lb.	.....	.01	.01	.01
.02¼	.02	.02¼	.02	50% powd, 100 lb bag wks lb.	.02	.02¼	.02¼	.02
4.12	3.82	4.42	3.07	Starch, powd., 140 lb bags .....100 lb.	3.62	3.92	4.02	3.62
4.02	3.72	4.32	2.97	Pearl, 140 lb bags.....100 lb.	3.52	3.72	3.92	3.52
.06¾	.05¾	.06¾	.05¾	Potato, 200 lb bags.....lb.	.05¾	.06¼	.06¼	.05¾
.06¾	.05¾	.06¾	.05¾	Imported bags.....lb.	.05¾	.06¼	.06¼	.05¾
.08¼	08	.08¼	.08	Soluble.....lb.	.08	.08½	.08½	.08
.10	.09½	.10	.09½	Rice, 200 lb bbls.....lb.	.09½	.10	.10	.09½
.07	.06½	.07	.06½	Wheat, thick bags.....lb.	.06½	.07	.07	.06½
.10	.09½	.10	.09½	Thin bags.....lb.	.09½	.10	.10	.09½
.07½	.07½	.07½	.07½	Strontium carbonate, 600 lb bbls wks.....lb.	.07½	.07½	.07½	.07½
.09½	.08¾	.09	.08¾	Nitrate, 600 lb bbls NY....lb.	.09	.09½	.09½	.09
1.25	1.25	.....	.....	Peroxide, 100 lb drs.....lb.	.....	1.25	1.25	1.25
				Sulfur				
2.05	2.05	2.05	2.05	Sulfur Brimstone, broken rock, 250 lb bag c-1.....100 lb.	.....	2.05	2.05	2.05
19.00	18.00	19.00	18.00	Crude, f. o. b. mines.....ton	18.00	19.00	19.00	18.00
2.40	2.40	2.40	2.40	Flour for dusting 99½%, 100 lb bags c-1 NY....100 lb.	.....	2.40	2.40	2.40
2.50	2.50	2.50	2.50	Heavy bags c-1.....100 lb.	.....	2.50	2.50	2.50
3.45	3.45	3.45	3.45	Flowers, 100%, 155 lb bbls c-1 NY.....100 lb.	.....	3.45	3.45	3.45
2.85	2.65	2.85	2.65	Roll, bbls 1c-1 NY.....100 lb.	2.65	2.85	2.85	2.65
.05½	.05	.05½	.05	Sulfur Chloride, red, 700 lb drs wks.....lb.	.05	.05½	.05½	.05
.04½	.03½	.04½	.03½	Yellow, 700 lb drs wks.....lb.	.03½	.04½	.04½	.03½
.08½	.07	.08½	.08	Sulfur Dioxide, 150 lb cyl....lb.	.07	.07½	.07½	.07
.19	.10	.19	.17	Extra, dry, 100 lb cyl.....lb.	.10	.12	.12	.10
.65	10	.65	.10	Sulfuryl Chloride, 600 lb dr...lb.	.10	.65	.65	.10
15.00	12.00	15.00	12.00	Talc, Crude, 100 lb bgs NY...ton	12.00	15.00	15.00	12.00
18.00	16.00	18.00	16.00	Refined, 100 lb bgs NY..ton	16.00	18.00	18.00	16.00
25.00	18.00	35.00	30.00	French, 220 lb bags NY...ton	18.00	22.00	22.00	18.00
45.00	35.00	45.00	38.00	Refined, white, bags....ton	35.00	40.00	40.00	35.00
50.00	40.00	50.00	40.00	Italian, 220 lb bags NY...ton	40.00	50.00	50.00	40.00
55.00	50.00	55.00	50.00	Refined, white, bags....ton	50.00	55.00	55.00	50.00
10.00	9.00			Superphosphate, 16% bulk, wks.....ton	8.50	8.75	9.50	8.50
.....	.....			Triple bulk, wks.....unit	.....	.65	.65	.65
4.50&10	4.00&10	5.10&10	4.65&10	Tankage Ground NY.....unit	.....	3.25&10	4.00&10	3.25&10
4.80&10	3.75&10	4.80&10	3.90&10	High grade f.o.b. Chicago.unit	.....	3.35&10	3.85&10	3.35&10
4.80&10	4.35&10	5.00&10	4.60&10	South American cif.....unit	.....	3.25&10	4.25&10	3.25&10
.05¾	.04¼	.05	.04¼	Tapioca Flour, high grade bgs.lb.	.05¼	.05¾	.05¾	.05¼
.04¼	.03¾	.04	.03¾	Medium grade, bags.....lb.	.04¼	.04¾	.04¾	.04¼
.27	.26	.27	.26	Tar Acid Oil, 15%,drums....gal.	.24	.25	.27	.24
.30	.29	.30	.29	25% drums.....gal.	.26	.28	.30	.26

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Prices Current and Comment

Purchasing Power of the Dollar: 1926 Average—$1.00 - 1929 Average $1.039 - Jan. 1929 $1.026 - July 1930 $1.191

tanks from the Pacific Coast were reported to be going through at 7½c.

Cocoanut Oil — Business in this commodity developed no new angles. Heavy stocks and poor demand continued but prices remained fairly firm halting the sustained declines of the past few months. Some slight concessions were made however on firm bids. Ceylon was quoted at 5⅞c in tanks N. Y. at 6¼c; Manilla in tanks, Pacific Coast 5⅞c.

Corn Oil — Sales showed a decided improvement and prices were advanced from the figures of last month which were the lowest recorded in 20 years. Crude oil was quoted at 7c a lb. buyers' tanks, f. o. b., Western mill points. Refined in bbl. at N. Y., was advanced ¼c a lb. to 9¾c for carlots and 10¼ for less carload.

Cottonseed Oil — PSY reached a new low level of 8c a lb. with futures about 8.22c a lb. The U. S. cotton report of July 1st showed a decrease in acreage of about one million two hundred thousand acres. On the other hand, cotton consumption at the mills shows a marked decrease the first six months of 1929. Spot demand for cottonseed oil is relatively small and no improvement is in sight at least for the immediate future.

Lard Oil — Despite the fact that material was in rather heavy supply, prices during the past month did not continue to go any lower. The undertone was better and sales were made on reported prices. Edible is quoted at 12½c; extra at 10c.

Linseed Oil — Shipments against contract continued during July to remain substantial and with stocks at a low ebb, material for immediate spot delivery was quite scarce. Inquiries for fall deliveries are beginning to come in and this early action on the part of consumers should tend to strengthen the price position. The Canadian flax acreage has been officially estimated at 451,500 as compared with 382,359 for 1929. The condition of the crop is given as 95% of the ten year average compared with 91% on the same date a year ago. The dry hot weather of the past month has had a slight deteriorating effect on the crop. A conservative estimate places the total northwest crop at 30,000,000 bushels and the Canadian crop at 3,250,000 bushels. Imports for the month of May amounted to 1,454,179 bushels and 136,859 lbs. of oil. The price on carlots ranged from 13.8 @ 14c during the latter portion of the month.

Menhadan Oil — Offerings of the crude oil have been withdrawn and business remains at a standstill with prices quoted being merely nominal.

Olive Oil — An active demand for commercial grade was responsible for a

1929 High	1929 Low	1928 High	1928 Low		Current Market	1930 High	1930 Low
				Terra Alba Amer. No. 1, bgs or			
1.75	1.15	1.75	1.15	bbls mills.....100lb.	1.15	1.75	1.15
2.00	1.50½	2.00	1.50	No. 2 bags or bbls...100lb.	1.50	2.00	1.50
.02½	01	.02½	.02	Imported bags.....lb.	.01½	.01½	.01½
.09½	.09	.....	.....	Tetrachlorethane, 50 gal dr...lb.	.09	.09½	.09½
.20	.20	.20	.20	Tetralene, 50 gal drs wks.....lb.	.....	.20	.20
.24	.22	.24	.22	Thiocarbanilid, 170 lb bbl....lb.	.26½	.28½	.28½
				Tin Bichloride, 50% soln, 100 lb			
.14½	.13½	.17½	.14½	bbls wks.....lb.	.....	.12½	.12½
.38	.33	.41½	.36½	Crystals, 500 lb bbls wks...lb.	.27½	.28	.34
.48	.39	.58	.48	Metal Straits NY.....lb.	.....	.38	.38
.56	.42	.75	53	Oxide, 300 lb bbls wks.....lb.	.....	.36	.42
				Tetrachloride, 100 lb drs wks.			
.30½	.27½	.35½	.30½	.....lb.	.....	.20¾	.25¾
.50	.22	.40	.40	Titanium Dioxide 300 lb bbl..lb	.22	....	.50
.14	.07½	.14	.13½	Pigment, bbls.....lb.	.07½	.07½	.07½
.45	.45	.45	.40	Toluene, 110 gal drs.....gal.	.....	40	.40
.40	.40	.45	.35	8000 gal tank cars wks....gal.	.....	.35	.35
.94	.90	.94	.90	Toluidine, 350 lb bbls.....lb.	90	.94	.94
.32	.31	.32	.31	Mixed, 900 lb drs wks.....lb.	.31	.32	.32
.95	.85	.90	.85	Toner Lithol, red, bbls.....lb.	.90	.95	.95
.80	.70	.80	.70	Para, red, bbls.....lb.	.....	.80	.80
1.55	1.50	1.80	1.70	Toluidine .....lb.	1.50	1.55	1.55
.36	.32	3.90	3.60	Triacetin, 50 gal drs wks.....lb.	.32	.36	.36
.10½	.10	.....	.....	Trichlorethylene, 50 gal dr...lb.	.10	.10½	.10½
.60	.55	.....	.....	Triethanolamine, 50 gal drs...lb.	.40	.42	.42
.45	.33	.50	.36	Tricresyl Phosphate, drs.....lb.	.33	.45	.45
.70	.58	.73	.69	Triphenyl guanidine.....lb.	.58	.60	.60
.75	.60	.75	.70	Phosphate, drums.....lb.	.60	.70	.70
2.00	1.75	3.00	2.50	Tripoli, 500 lb bbls.....100 lb.	.75	2.00	2.00
.65	.51½	.66½	.50½	Turpentine Spirits, bbls.....gal.	.45	.51	.61½
.57	.49	.59	.46	Wood Steam dist. bbls....gal.	.....	.44	.52
.30	.15	.20	.18	Urea, pure, 112 lb cases.....lb	15	.17	.17
105.00	98.00			Fert. grade, bags c.i.f.....ton	.....	108.00	108.00
106.30	99.30			c. i. f. S. points.....ton	.....	109.30	109.30
				Valonia Beard, 42%, tannin			
55.00	42.00	76.00	55.00	bags.....ton	.....	40.00	40.00
35.00	30.00	55.00	58.00	Cups, 30-31% tannin.....ton	.....	25.00	27.00
43.00	35.00	64.00	45.00	Mixture, bark, bags.....ton	.....	30.00	32.50
2.05	2.00	2.10	1.75	Vermillion, English, kegs....lb..	1.75	1.80	2.05
1.00	1.00	.....	.....	Vinyl Chloride, 16 lb cyl.....lb.	.....	1.00	1.00
49.75	43.50	76.00	49.75	Wattle Bark, bags.....ton	.....	42.00	47.75
				Extract 55%, double bags ex-			
.06½	.06½	.06½	.05½	dock.....lb.	.....	.06½	.06½
				Whiting, 200 lb bags, c-1 wks			
1.25	1.00	1.25	1.25	.....100 lb.	.....	1.00	1.00
13.00	13.00	13.00	13.00	Alba, bags c-1 NY.....ton	.....	13.00	13.00
1.35	1.35	1.35	1.35	Gilders, bags c-1 NY...100 lb.	.....	1.35	1.35
.33	.33	.32	.32	Xylene, 10 deg tanks wks. .gal.	.....	.28	.31
.32	.30	.32	.30	Commercial, tanks wks...gal.	.25	.30	.33
.38	.38	.38	.38	Xylidine, crude.....lb.	.....	.37	.38

Zinc

				Zinc Ammonium Chloride powd.,			
5.75	5.25	.05½	5.85	400 lb bbls.....100 lb.	5.25	5.75	5.75
.11	.10½	.10	.09½	Carbonate Tech, bbls NY..lb.	.10½	.11	.11
				Chloride Fused, 600 lb drs.			
.06	.05½	.06	.06	wks.....lb.	.05½	.06	.06
.06½	.06½	.06½	.06½	Gran., 500 lb bbls wks.....lb.	.06½	.06½	.06½
3.00	3.00	3.00	3.00	Soln 50%, tanks wks...100 lb.	.....	3.00	3.00
.41	.40	.41	.40	Cyanide, 100 lb drums.....lb	.40	.41	.41
1.00	1.00			Dithiofuroate, 100 lb dr....lb.	.....	1.00	1.00
.08½	.08½	.09	.09	Dust, 500 lb bbls c-1 wks...lb.	.09½	.11	.11
				Metal, high grade slabs c-1			
6.45	6.45½	6.40	6.07½	NY.....100 lb.	.....	6 45	6.45
.07½	.07	.07½	.07½	Oxide, American bags wks..lb.	.07½	.07½	.07½
.11½	.09½	.12½	.10½	French, 300 lb bbls wks...lb.	.09½	.11½	.11½
1.25	1.25	.....	.....	Perborate, 100 lb drs.....lb.	.....	1.25	1.25
1.25	1.25	.....	.....	Peroxide, 100 lb drs.....lb.	.....	1.25	1.25
.26	.25	.....	.....	Stearate, 50 lb bbls.....lb.	.23½	.24	.26
.03½	.03	.03½	.03½	Sulfate, 400 bbl wks.....lb.	.03	.03½	.03½
.32	.30	.32	.30	Sulfide, 500 lb bbls.....lb.	.30	.32	.32
.30	.28	.30	.29	Sulfocarbolate, 100 lb keg..lb.	.28	.30	.30
.03	.02½	.03	.02½	Zirconium Oxide, Nat. kegs...lb.	.02½	03	.03
.50	.45	.50	.45	Pure kegs.....lb.	.45	.50	.50
.10	.08	.10	.08	Semi-refined kegs.....lb.	.08	.10	.10

Oils and Fats

.13½	.13	.14½	.13	Castor, No. 1, 400 lb bbls.....lb.	.13	.13½	.13½
.13	.12½	.14	.12½	No. 3, 400 lb bbls.....lb.	.12	.13	.13
.15	.14	.17	.14	Blown, 400 lb bbls.....lb.	.14	.15	.15
.16	.14½	.17	.14½	China Wood, bbls spot NY...lb.	.09½	.10½	.13
.15	.13½	.14½	.14½	Tanks, spot NY.....lb.	.09	.09½	.11½
.14½	.12½	.14½	.12½	Coast, tanks, Aug.....lb.	.07½	.08½	.10½
.10½	.10½	.11½	.10½	Cocoanut, edible, bbls NY....lb.	.....	.10½	.10½
.09½	.07½	.10	.09½	Ceylon, 375 lb bbls NY....lb.	.....	.07½	.08½
.08½	.06½	.09	.08½	8000 gal tanks NY.....lb.	.06½	.06½	.07
.10	.09½	.10½	.09½	Cochin, 375 lb bbls NY....lb.	.07½	.07½	.09½
.09½	.08½	.09½	.08½	Tanks NY.....lb.	.....	.07½	.08½
.09½	.07½	.10	.08½	Manila, bbls NY.....lb.	.07½	.07½	.08½
.08½	.06½	.08½	.08	Tanks NY.....lb.	.06½	.06½	.07½
.08	.06½	.08½	.07½	Tanks, Pacific Coast.....lb.	.05½	.06½	.07

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Prices Current and Comment

Purchasing Power of the Dollar: 1926 Average—$1.00 - 1929 Average $1.039 - Jan. 1929 $1.026 - July 1930 $ .191

strengthened price tone and supplies were held at 80c a gal. in bbl. Future shipments also were somewhat higher and were quoted at 76c. Edible grade was steady at $1.75 @ $2.00 depending upon quality. Olive oil foots were quiet, buyers showing little desire to commit themselves to any future buying policy. Prices were held at 6 @ 6¼c a lb.

Palm Oil — Producers have not offered material in the market during the past month and prices are therefore only nominal. Some small sales were made of Niger oil at 5¼ @ 5½c landed at N. Y. Lagos remained nominal at 7 @ 7¾c with little action on the part of either buyers or sellers.

Perilla Oil — Demand for this commodity remained very light but with only small offerings in the market no definite price changes were made during the past month.

Rapeseed Oil — Spot prices were reduced 1c during the month. A fair inquiry with light offerings tended to stabilize a market which has shown downward tendencies for the past few months. Exports from India of seed to England and the Continent amounted to 24,100 tons for the period Jan. 1st., to June 18, as against 39,250 tons for the same period a year ago.

Red Oil — Further weakness was in evidence in this market and a price reduction of ½c was put into effect. This further reduction was due partly to lower cost of raw materials, and partly to lessened demand from consumers.

Sesame Oil — Domestic supplies were ample to take care of a restricted demand from consumers. No price change was recorded, yellow being freely offered at 9c and white at 10 @ 12½c.

Soy Bean Oil — Imported stocks were still available at 9c in tanks on the Pacific Coast. With the advent of the new tariff rate it is not expected that imports will continue to arrive indefinitely. Domestic consumption is not so large but what domestic production can very easily satisfy our entire requirements. No price change was made in the tank car price for domestic and the demand remained slow.

Stearic Acid — A further reduction of ½c a lb. on all grades was announced in spite of reported improvement in shipments both spot and against contract.

Tallow — Improved demand has ended reductions which had brought prices to the lowest level for nearly thirty years. Extra is now quoted at 5¾c and edible, 6¾c. Further early advances are expected.

Greases — In sympathy with the improved tallow market, greases showed a firmer tendency but without definite price advances.

1929 High	1929 Low	1928 High	1928 Low		Current Market	1930 High	1930 Low
				Cod, Newfoundland, 50 gal bbls			
.64	.57½	.69	.63	.....gal.	....	.52	.56	.52
.60	.60	.63	.60	Tanks NY.....gal.	.54	.56	.62	.54
				Cod Liver see Chemicals.....				
.05½	.042	.06½	.05½	Copra, bags.....lb.	.....	.039	.046	.039
.10¾	.09½	.11	.10	Corn, crude, bbls NY.....lb.	.....	.08½	.10	.08½
.09¾	.07½	.10	.08¾	Tanks, mills.....lb.	.....	.07	.08	.07
.11¾	.10½	.12½	.11½	Refined, 375 lb bbls NY....lb.	.....	.09¾	.10½	.09½
.11	.09	.11½	.10¾	Tanks.....lb.	.....	.08	.10	.08
.09	.08½	.09½	.07¾	Cottonseed, crude, mill.....lb.	.07	.07½	.07½	.07
.1075	.085	10.65	.09½	PSY 100 lb bbls spot.....lb.	.083	.081	.088	.083
.1080	.088	10.75	.09½	Aug.—Oct.. .....lb.	.....	.085	.095	.085
				Degras, American, 50 gal bbls				
.05	.03½	.05	.04½	NY.....lb.	.03½	.04½	.04½	.03¼
.05¼	.04½	.05½	.04½	English, brown, bbls NY....lb.	.04½	.05	.05	.04¼
.05½	.05	.05½	.05½	Light, bbls NY .....lb.	.05	.05½	.05½	.05
				Dog Fish, Coast Tanks.....gal.	.....	.32	.34	.32

Greases

.08½	.06	.08½	.07	Greases, Brown.....lb.	.....	.05½	.06½	.05½
.08½	.06½	.08½	.07	Yellow.....lb.	.....	.05¾	.07½	.05¾
.11¼	.07½	.11	.09½	White, choice bbls NY.....lb	.06¾	.07¾	.08½	.06¾
		.42½	.40	Herring, Coast, Tanks.....gal.	.....	Nom.	.....	.....
Nom.	.....	Nom.	.09½	Horse, bbls.....lb.	.05½	Nom.	Nom.	.05½
.15¾	.14¾	.16½	.15½	Lard Oil, edible, prime.....lb.	.....	.12½	.13½	.12½
.13½	.12	.13½	.12	Extra, bbls.....lb.	.....	.10	.12	.10
.13¼	.11¾	.13	.11	Extra No. 1, bbls.....lb.	.....	.09¾	.11	.09¾
.162	.105	10.8	10.0	Linseed, Raw, five bbl lots...lb.	.....	.144	.146	.144
.158	.101	10.4	9.6	Bbls c-l spot.....lb.	.....	.14	.142	.14
.15	.093	9.6	8.8	Tanks.....lb.	.....	.132	.134	.132
.52	.45	.48	.40	Menhaden Tanks, Baltimore.gal.	.....	.50	.50	.50
.09	.09	.09	.09	Blown, bbls NY.....lb.	.....	.09	.09	.09
.70	.70	.70	.67	Extra, bleached, bbls NY..gal.	.....	.70	.70	.70
.64	.63	.64	.63	Ligh, pressed, bbls NY....gal.	.63	.64	.64	.63
.67	.66	.67	.66	Yellow, pressed, bbls NY..gal.	.66	67	.67	66
				Mineral Oil, white, 50 gal bbls				
.60	.40	.60	.40	.....gal.	.40	.60	.60	.40
1.00	.95	1.00	.95	Russian, gal.....gal.	.95	1.00	1.00	.95
.19	.18½	19	.18½	Neatsfoot, CT, 20° bbls NY lb.	.....	.16¾	.17¾	.16¾
.13½	.12	.13½	.12	Extra, bbls NY.....lb.	.. ..	.10	.11½	.10
.15½	.13½	.16½	.15½	Pure, bbls NY.....lb.	.....	.12	.13½	.12
.11½	.10¾	.17¾	.11¾	Oleo, No. 1, bbls NY..... ..lb.	.....	.10½	.12½	10½
.11½	.10	.15½	11	No. 2, bbls NY..... ..lb	.....	.09	.11	.09
.10½	.09½	.14	.10	No. 3, bbls NY.....lb.	.. ..	.09½	.10½	.09½
1.40	1.05	1.40	1.18	Olive, denatured, bbls NY...gal.	.....	.80	1.00	.70
2.00	1.95	2.00	1.75	Edible, bbls NY.....gal	1.75	2.00	2.00	1.75
.11¼	.08½	.11	.09¾	Foots, bbls NY.....lb.	.06	.06½	.08	.06
.09	.08	.09½	.08½	Palm. Kernel, Casks.....lb.	.....	.07½	.08½	.07½
.09	.07½	.09½	.07¾	Lagos, 1500 lb casks.....lb.	.....	.07	.07¾	.07
.08¾	.07	.08¾	.07	Niger, Casks.....lb.	.05¼	.05½	.07½	.05¼
Nom.	.....	.12½	.12	Peanut, crude, bbls NY.....lb.	.. ..	Nom.	Nom.	.....
15	.14½	.17	.14½	Refined, bbls NY.....lb.	.14½	15	.15	.14½
20	.15	.21	.13	Perilla, bbls NY.....lb.	.....	.10½	.14½	.10½
15¾	.13	.15½	.10½	Tanks, Coast.....lb.	.....	.10	.11½	.10
1.75	1.70	1.75	1.70	Poppyseed, bbls NY.....gal.	1.70	1.75	1.75	1.70
1.04	1.04	1.06	1.01	Rapeseed, blown, bbls NY..gal.	.....	.85	1.00	.85
.90	.8[illegible]	.92	.83	English, drms. NY.....gal.	.....	.75	.82	.75
88	.72	.90	.81	Japanese, drms. NY.....gal.	.....	.62	.70	.62
11	.10½	10¾	.09½	Red, Distilled, bbls.....lb.	.09½	.10½	.10¾	.09½
10½	.09½	.09½	.08	Tanks .....lb	.08½	.08¾	.09½	.08¾
.44	.42	.50	42	Salmon, Coast, 8000 gal tks..gal.	.....	Nom.	.44	.42
.51	.45	.50	41	Sardine, Pacific Coast tks...gal.	.....	.35	.42	.35
.12	.11½	.13½	.12	Sesame, edible, yellow, dos...lb.	.....	.09	.12	.09
.12½	.12½	15	.12½	White, dos.....lb.	.....	.10	.12½	.10
.40	.40	.40	.40¾	Sod, bbls NY.....gal..	.....	40	.40	.40
		.....	.....	Soy Bean, crude.....				
.10¾	.09	.09½	.09	Pacific Coast, tanks.....lb.	.....	.09	.09¼	.08⅞
.10½	.08¼			Domestic tanks, f.o.b. mills, ...lb.	.....	.08	08½	.07¾
.12¾	.11¼	.12½	.12	Crude, bbls NY.....lb.	.....	.10½	.10¾	.10½
.11½	.10¼	.10¾	.10½	Tanks NY.....lb.	.....	.09¾	.09¾	.09½
.13¾	.13½	.13¾	.13½	Refined, bbls NY.....lb.	.12½	.13½	.13½	.13½
				Sperm, 38° CT, bleached, bbls				
.85	.84	.85	.84	NY.....gal.	.84	.85	.85	.84
.80	.79	.80	.79	45° CT, bleached, bbls NY gal.	79	.80	.80	.79
				Stearic Acid, double pressed dist				
.18½	.15½	.18½	.11	bags.....lb.	.14	.14½	.15	.14
				Double pressed saponified bags				
.19	.15¾	.19	.11½	.....lb.	.14½	.15	.15½	.14½
20½	.17½	.20½	.13½	Triple, pressed dist bags..lb	.16	.16½	.17	.16
.12	.09¾	.12½	.09½	Stearine, Oleo bbls.....lb	.08½	.08¾	.09½	.08½
.08¾	.07	09½	.08½	Tallow City, extra loose..... lb.	.....	.05½	.07⅝	.05
.10½	.08	.10¾	.09¾	Edible, tierces.....lb	.....	.06¾	.09½	.06
.12	.10¾	.12½	.11½	Tallow Oil, Bbls, c-1 NY...lb.	.....	.09½	.11	.09½
.11	.09¾	.11½	.10½	Acidless tanks NY.....lb.	.....	.08¼	.10	.08¾
Nom.	.08	Nom.	.08	Vegetable, Coast mats.....lb.	.07½	Nom.	Nom.	.07½
.12	.11	.1[illegible]	.....	Turkey Red, single bbls.....lb.	.11	.12	.12	.11
.16	.14	16	.14	Double, bbls .....lb.	.14	.16	.16	.14
				Whale, bleached winter, bbls				
.80	.74	.80	.78	NY.....gal.	.....	.74	.74	.74
.82	.76	.82	.80	Extra, bleached, bbls NY..gal.	.. ..	.76	.76	.76
.78	.73	.78	.76	Nat. winter, bbls NY.... gal.	.. ..	.73	.73	.73

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"WE"—Editorially Speaking

Salt cake is staging a comeback. For years one of the troublesome problems of acid manufacturers was the disposition of by-product salt cake. Radical changes in the methods of producing muriatic and nitric acids have had a tendency to reduce the available tonnage while the demand from the kraft paper industry has increased tremendously. Harry O. Moraw, chemical marketing specialist in charge of industrial chemicals, Bureau of Foreign and Domestic Commerce, who writes about the shortage of salt cake in this country, needs no introduction to "Chemical Markets" readers. A complete resume of his numerous activities was given in our June issue in conjunction with his article "Shifting Chemical Demands." Mr. Moraw has made an exhaustive study of the available natural deposits of crude sodium sulfate both in this country and abroad and in his present article summarizes these briefly for us. Sooner or later we will be forced to fall back on these natural resources despite the fact that they are located at considerable distances from consuming centers, unless some unforeseen change takes place and of which we have no present indication. The subject is a timely one and of vital interest to those industries dependent upon the use of salt cake in manufacturing processes.

The past decade has witnessed some striking changes in the course of commodity prices. It might almost be said that a complete cycle has taken place in that period. Williams Haynes pictures for us the rise and fall of commodity prices in the chemical field in an article, "Commodity Prices in the Past Decade."

"Brevity is the soul of wit", and a guiding rule of our editorial department where we strive to save to the utmost the time of our busy readers. However, it is possible to be too short and snappy, and the sub-heading of Mr. Crane's most illuminating paper on synthetic ammonia, which we printed in our July issue, conveyed an impression which was certainly not in this very able review. We wrote "Drastic reduction in price, developments of new fields and new uses are the promises of the near future for the high-pressure chemicals". What we might more correctly have said was "Drastic reduction in price make possible developments of new fields and new uses which are the promises of the near future," The lower cost of menthanol to consumers is a fact not a promise, as every buyer knows today.

Ballots will soon be mailed for the election of the chemical industrialist who will receive the CHEMICAL MARKETS Medal. Watch for yours and be sure to mail it back within the prescribed time. This is the opportunity of every subscriber to do honor to the man who has done most by way of economic services for the chemical industry.

COMING FEATURES

The Pulse of Chemical Business—Leaders in the chemical industry, sales managers, and purchasing agents, executives vitally concerned about commodity prices will give their individual viewpoints on this important subject. Collectively, they afford CHEMICAL MARKETS readers an opportunity to feel the pulse of business.

Insurance Figures Show Need of Greater Care in Handling Chemicals—James C. Cook, sales manager, Schwenk Safety Device Corporation, tells how acid handling can be made safer.

Fighting Fire in Chemicals—C. B. White, chemist-engineer, American-LaFrance and Foamite Corporation, describes the best methods of fighting various kinds of chemicals on fire.

Air Conditioning in the Chemical Industry will be the subject of an article in an early issue.

Chrome and its new importance in plating will be treated in a forthcoming article.

Harry M. Mabey, who writes our timely and important article on the new freight rates, is general traffic manager, Mathieson Alkali Works. He was born in Canada, Feb. 20, 1886 and educated in the public schools, Newton, Massachusetts and the Suffolk Law School, Boston. His business experience has been gained with the New York Central Lines, at the Boston end; with the National Association of Cotton Manufacturers, Boston, and at the Boston Army Supply Base, where he had charge of freight traffic during 1918 and 1919, and in his present position. He is a member of the Alkali Traffic Association, the Electrochemical Traffic Association (of which he was chairman in 1922), the Transportation Committee of the Chlorine Institute (chairman, 1923), Traffic Managers' Council, Associated Industries of New York (chairman, 1925-27). His clubs are the Chemists and the Traffic, both of New York.

Although outside the chemical industry in their various activities, the seconders of the nominations for the Chemical Markets Medal are probably as well known a group of men as would be likely to be brought together within ten short pages. George Ade is a famous manufacturer of good cheer—his humorous books and plays have been distributing dividends of laughter these many years. Thomas A. Edison, whose inventions have added immeasurably to both industrial and private life, continues his all-absorbing interest in science. Henry Ford finds his economic faith justified also in the chemical industry, where Dr. Dow, whose nomination he seconds, has applied principles similar to those that have made Ford production methods famous. Dr. Michael I. Pupin, himself a scientist of note, has been professor of electromechanics at Columbia since 1901. John J. Raskob is connected with General Motors and with E. I. duPont de Nemours and played a prominent part in politics not long ago as Al Smith's manager during his presidential campaign.

A story has been going the rounds about Joe Turner of Joseph Turner & Company which is almost too good to be true. It seems that one of his younger contemporaries among the chemical distributors asked Mr. Turner to reveal the inner secrets of his success. The answer is reported to have been: "In my youth I formed the habit of buying my straw hat in August." This wise and cryptic advice must be allegoric.